R-1168

原本

最　終　報　告　書

2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた
経口投与による反復投与毒性・生殖発生毒性併合試験

試験番号：R-1168

試験期間：2015 年 8 月 31 日-2016 年 3 月 28 日

試験施設
株式会社ボゾリサーチセンター　御殿場研究所
〒412-0039　静岡県御殿場市かまど 1284

試験委託者
厚生労働省　医薬食品局　審査管理課　化学物質安全対策室
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〒151-0065　東京都渋谷区大山町 36-7

1. GLP 陳述書

試験番号　：　R-1168

試験表題　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた経口投与による反復投与毒性・生殖発生毒性併合試験

本試験は以下に示す基準を遵守して実施したものであります。

- 「新規化学物質等に係る試験を実施する試験施設に関する基準」（平成 23 年 3 月 31 日：薬食発 0331 第 8 号、平成 23・03・29 製局第 6 号、環保企発第 110331010 号）

[redacted]　2016 年 3 月 28 日 [redacted]

試験責任者
株式会社ボゾリサーチセンター　御殿場研究所

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3.　試験実施概要

3.1　試験番号

R-1168

3.2　試験表題

2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた経口投与による反復投与毒性･生殖発生毒性併合試験
（Combined repeated dose toxicity study with the reproduction / developmental toxicity screening test of 2,5,8,11,14,17- hexaoxanonadecan- 19-ol by oral administration in rats）

3.3　試験目的

本試験は、動物に被験物質を一定期間反復投与したときに現れる被験物質の一般毒性及び生殖発生毒性を明らかにすることを目的とした。

3.4　試験委託者

厚生労働省　医薬食品局　審査管理課　化学物質安全対策室
〒100-8916　東京都千代田区霞が関 1-2-2

3.5　試験受託者

株式会社ボゾリサーチセンター
〒151-0065　東京都渋谷区大山町 36-7

3.6　試験実施施設

株式会社ボゾリサーチセンター　御殿場研究所
〒412-0039　静岡県御殿場市かまど 1284

3.7　被験物質

製造者	:	[redacted]
名称	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol
CAS 番号	:	23601-40-3
官報公示整理番号	:	(7)-97、(2)-444（化審法）
入手日	:	2015 年 8 月 28 日

3.8　試験日程

試験開始日　：　2015 年　8 月 31 日
被験物質出庫日　：　2015 年　9 月 15 日
動物入荷日　：　2015 年　9 月　2 日
実験開始日（投与開始日）
　：　2015 年　9 月 23 日
交配開始日　：　2015 年 10 月　7 日
分娩開始日　：　2015 年 10 月 29 日
母動物剖検開始日　：　2015 年 11 月　3 日
投与終了剖検日　：　2015 年 11 月　4 日　（雄及び非交配群）
回復開始日　：　2015 年 11 月　4 日
回復終了剖検日　：　2015 年 11 月 18 日
動物試験終了日　：　2015 年 11 月 18 日
実験終了日（病理組織学検査終了日）
　：　2016 年　1 月 13 日
試験終了日　：　2016 年　3 月 28 日

3.9　試験責任者

株式会社ボゾリサーチセンター　御殿場研究所　研究部
[redacted]

3.10　試験担当者

試験主担当者　：
被験物質保存責任者：
臨床検査責任者　：
化学分析責任者　：
病理検査責任者　：
統計解析責任者　：
[redacted]

3.11　試験成績の信頼性に影響を及ぼしたと思われる環境要因

本試験に関し、試験成績の信頼性に影響を及ぼしたと思われる環境要因はなかった。

3.12　予見することができなかった試験の信頼性に影響を及ぼす疑いのある事態及び試験計画書に従わなかったこと

動物番号 4011 の上皮小体（両側）が標本上欠落していた。しかし、1 例のみであり、各群 80%以上の動物で片側の上皮小体の鏡検が可能であったことから、病理組織学的評価は可能と判断されたため、試験成績へ及ぼす影響はなかった。

その他には本試験に関し、試験の信頼性に影響を及ぼす疑いのある事態及び試験計

画書に従わなかったことはなかった。

3.13　資料保存

株式会社ボゾリサーチセンターの保存方法に従い、試験計画書（変更書を含む）原本、記録文書、生データ、報告書類（最終報告書は原本）及び標本（被験物質保存サンプルを含む）は株式会社ボゾリサーチセンター御殿場研究所の資料保存施設に最終報告書提出後 10 年間保存する。期間終了後の保存については、厚生労働省医薬食品局審査管理課化学物質安全対策室と株式会社ボゾリサーチセンター間で協議し、その処置を決定する。ただし、長期保存に耐えられない生体試料（尿、血漿、血清）及び腟垢標本については、試験終了までに廃棄した。また、死産児、死亡児及び生後 4 日生存児については、出生率及び生後 4 日生存率に被験物質投与の影響が認められなかったため試験終了までに廃棄した。

3.14　試験責任者の記名・押印

[redacted]　2016 年 3 月 28 日 [redacted]

4. 要約

2,5,8,11,14,17-hexaoxanonadecan-19-ol をコーン油で懸濁し、100、300 及び 1000 mg/kg の投与量で Sprague-Dawley 系 SPF ラット（交配群として雌雄各 12 匹/群、雌には非交配群として対照群及び 1000 mg/kg 投与群に各 10 匹を追加）の雄には交配前 14 日間に加え交配期間を通して剖検前日まで（42 日間）、雌には交配前 14 日間に加え交配期間及び妊娠期間を通して授乳 4 日まで（41~47 日間）、非交配群雌には 42 日間強制経口投与し、反復投与毒性及び生殖発生毒性を検討した。更に、0 及び 1000 mg/kg 投与群の一部の動物（交配群雄 5 匹と非交配群雌 5 匹）については、雄及び非交配群雌ともに 42 日間投与した後 14 日間の回復期間を設け、毒性変化の可逆性を検討した。なお、対照群には媒体であるコーン油を投与した。

4.1 反復投与毒性

いずれの投与群においても死亡動物はみられなかった。

1000 mg/kg 群では、雄で総胆汁酸及びカリウムの低値、非交配群雌でリン脂質の低値が認められた。

300 mg/kg 群では、雄で総胆汁酸及びカリウムの低値が認められた。

100 mg/kg 群では、雄で総胆汁酸の低値が認められた。

14 日間の回復期間によりリン脂質の低値は消失し、回復性が認められた。一方、カリウムの低値の回復性は確認されなかった。

なお、総胆汁酸の低値は回復終了時にはみられず、可逆性の変化であり肝臓の病理組織に異常はみられないこと、カリウムの低値は腎臓及び甲状腺に病理組織学的な異常はみられず、尿中の電解質にも異常はないことから、いずれも毒性学的意義はないと判断した。

4.2 生殖発生毒性

親動物及び児動物のいずれの検査においても、被験物質投与による影響は認められなかった。

これらの結果から、本試験条件下において、本被験物質の反復投与毒性に対する雄での無影響量は 100 mg/kg 未満、無毒性量は 1000 mg/kg であり、雌ではいずれも 300 mg/kg と判断した。生殖発生毒性に対する無影響量及び無毒性量は雄親動物、母動物及び児動物でいずれも 1000 mg/kg と判断した。

5. 緒言

厚生労働省医薬食品局審査管理課化学物質安全対策室の委託により、2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた経口投与による反復投与毒性･生殖発生毒性併合試験を実施したので、その成績を報告する。

なお、本試験は以下の基準を遵守し、ガイドライン等に準拠して、株式会社ボゾリサーチセンターで実施した。また、本試験は試験実施施設の動物実験委員会の承認（承認番号：G150265）を受けて実施した。

5.1 GLP

- 「新規化学物質等に係る試験を実施する試験施設に関する基準」
  （平成 23 年 3 月 31 日：薬食発 0331 第 8 号、平成 23･03･29 製局第 6 号、環保企発第 110331010 号）

5.2 毒性試験ガイドライン

- 「新規化学物質等に係る試験の方法について」
  （平成 23 年 3 月 31 日：薬食発 0331 第 7 号、平成 23･03･29 製局第 5 号、環保企発第 110331009 号）

5.3 動物の福祉

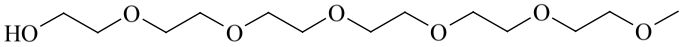
- 「動物の愛護及び管理に関する法律」
  （昭和 48 年 10 月 1 日法律第 105 号）
- 「実験動物の飼養及び保管並びに苦痛の軽減に関する基準」
  （平成 18 年 4 月 28 日環境省告示第 88 号）
- 「動物実験の適正な実施に向けたガイドライン」
  （日本学術会議 平成 18 年 6 月 1 日）
- 「厚生労働省の所管する実施機関における動物実験等の実施に関する基本指針の一部改正について」（平成 27 年 2 月 20 日科発 0220 第 1 号）

6. 試験材料及び方法

6.1 被験物質及び媒体

6.1.1 被験物質

2,5,8,11,14,17-hexaoxanonadecan-19-ol は[redacted]から以下の情報とともに購入した。また、試験開始前に赤外吸収スペクトルの測定により特性が確認されている（試験番号：A-2782、Attached Data 1）。

製造者	:	[redacted]
名称	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol
別名	:	ヘキサエチレングリコールモノメチルエーテル
英語名称	:	Hexaethylene Glycol Monomethyl Ether
CAS 番号	:	23601-40-3
官報公示整理番号	:	(7)-97、(2)-444（化審法）
構造式又は示性式	:	 $H(OCH_2CH_2)_6OCH_3$
分子式	:	$C_{13}H_{28}O_7$
分子量	:	296.36
常温における性状	:	無色透明液体*
沸点/沸騰範囲	:	167°C/0.1kPa*
ロット番号	:	YN4XC
純度（GC）	:	98.6%
不純物	:	不明
比重（20/20）	:	1.0835
屈折率（n20/D）	:	1.4538
保存条件	:	密栓、冷暗所、防湿、開封後窒素充填
保存方法	:	気密容器に入れ冷蔵庫内（許容値：1~10°C、実測値：3~8°C）に保存した。
保存場所	:	御殿場研究所被験物質保存室、第 2 研究棟 4 階被験物質調製室及び分析研究部標準物質保存場所
取扱い上の注意	:	作業場の換気を十分に行い、マスク、保護眼鏡、保護手袋等の適切な保護具を着用し、直接の接触を防ぐ。取り扱い後は、手、顔等を良く洗い、うがいをする。
安定性	:	投与期間終了後に株式会社ボゾリサーチセンター御殿場研究所において、残余被験物質の赤外吸収スペクトルを確認した結果、実験実施前に確認した参照スペクトルとほぼ同様であり安定性に問題はなかった

（Attached Data 2）。

被験物質残余の処理：　被験物質 5 g を保存試料として御殿場研究所の資料保存施設に保存した。動物試験及び分析終了後の残量は全て焼却処分した。

*：製造元の東京化成工業株式会社発行の製品安全データシートに基づく

6.1.2　媒体

名称　：　コーン油
規格　：　生化学用
製造者　：　和光純薬工業株式会社
ロット番号（有効期限）
：　CTQ1187（2019 年 12 月 4 日、2019 年 12 月 17 日）、CTF5121（2020 年 8 月 3 日、2020 年 10 月 5 日）
保存方法　：　室温
保存場所　：　御殿場研究所第 2 研究棟 4 階被験物質調製室

なお、媒体については、本試験に先立って実施した被験液中濃度測定法バリデーション及び安定性・均一性試験（試験番号：A-2764）[1]において、コーン油中での被験物質の安定性に良好な結果が得られていることから、コーン油を選択した。

6.2　投与液の調製及び保存方法

6.2.1　対照群投与液の採取

対照群投与液として、被験液調製当日の被験物質を取り扱う前に必要量のコーン油を 1 日使用分ずつ、褐色ガラス瓶に貼付したラベルを確認しながら分注した。

6.2.2　被験液の調製

濃度ごとに必要量の被験物質をガラスシリンジで採り、ビーカーに正確に秤取した。秤取した被験物質に最終調製量の 5 割程度の媒体を加え、マグネチックスターラーで撹拌し十分に懸濁させた。均一に懸濁したことを目視により確認後、調製液をメスシリンダーに移すとともに、ビーカーを少量の媒体で数回洗い、その液もメスシリンダーに加えた。更に媒体をメスシリンダーに加え規定量にメスアップし、20、60 及び 200 mg/mL 液（低、中及び高用量群投与液）を調製した。調製は 7 日に 1 回以上の頻度で最大 7 日分を一括して行った。残液はポリ瓶に回収又はペーパータオル等に吸着させて焼却処分した。

6.2.3　投与液の保存

対照群投与液及び被験液は褐色ガラス瓶に入れ、冷所（冷蔵庫内、許容値：1~10°C、実測値：3~5°C）に保存し、安定性の確認された範囲内で投与に使用した。

6.2.4　被験液の安定性

本被験物質の 10.0 及び 200 mg/mL 濃度の被験液（媒体：コーン油）は、褐色ガラス瓶に入れ冷所（冷蔵庫内、許容値：1~10°C）で 8 日間保存後、更に室温下（許容値：1~30°C）で 24 時間保存（冷所 8 日間 + 室温 24 時間）したときに安定であることが試験施設で確認されている（試験番号：A-2764、Attached Data 3）[1]。

6.2.5　被験液の濃度及び均一性確認

初回投与及び投与 6 週の投与に使用する各濃度の被験液（上層、中層、下層から各 10 mL 採取）について、株式会社ボゾリサーチセンター御殿場研究所で GC により濃度及び均一性確認を実施した。なお、初回投与に使用する被験液については、投与開始前に確認を行った。その結果、各濃度液における表示値に対する被験物質の割合は 102.0~106.8%、変動係数（CV）は 3.3%以下であり（Attached Data 4、5）、いずれも許容範囲内（濃度：表示値に対する割合；100.0±10.0%、均一性：CV が 10%以下）であったことから、被験液の調製に問題はなかったと考えられた。なお、GC を用いた被験液中濃度測定法バリデーションは株式会社ボゾリサーチセンター御殿場研究所（試験番号：A-2764）[1]で実施された。分析法の概略を以下に示した。

[標準物質]

被験物質から一部分配したものを用いた。

名称	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol
ロット番号	:	YN4XC
保存条件	:	密栓、冷暗所、防湿、開封後窒素充填
保存方法	:	気密容器に入れ冷蔵庫内（許容値：1~10°C、実測値：3~8°C）に保存した。
保存場所	:	御殿場研究所　被験物質保存室及び分析研究部標準物質保存場所

[測定実測試料の調製]

各測定試料をスターラーで撹拌しながら n=1 で採取し、以下の表に示すように、アセトンで希釈した測定実測試料を用時調製した。

測定試料濃度 (mg/mL)	1 次希釈		2 次希釈		希釈率
	採取量 (mL)	定容量 (mL)	1 次希釈液 採取量 (mL)	定容量 (mL)	
20	1	20	2	20	200
60	1	50	2.5	30	600
200	1	100	1	20	2000

溶媒：アセトン

[GC システム]

機器名及び型式		メーカー
GC	HP6890N	Agilent Technologies, Inc.
インジェクタ	G2613A	
オートサンプラトレイ	G2614A	
データ処理ソフト	GC ChemStation G2070AJ	

[GC 測定条件]

カラム : DB-1（0.32 mm I.D.×30 m、膜厚 0.25 μm、Agilent Technologies Inc.）
キャリアガス : He
流量モード : コンスタントフローモード
流量 : 1.0 mL/min
注入口 : スプリット注入口
スプリット比 : 2:1
注入口温度 : 280°C
検出器 : Flame ionization detector（FID）
検出器温度 : 280°C
H_2 流量 : 45 mL/min
Air 流量 : 450 mL/min
メイクアップガス（N_2）流量 : 30 mL/min
オーブン温度 : 150°C（Hold 0 分）→280°C（10°C/min、Hold 0 分）
注入量 : 1 μL

6.3 試験動物種及び系統の選択理由

毒性試験法ガイドラインによりげっ歯類を用いた試験が必要とされていることからラットを選択した。また、この試験に使用された系統のラットは一般毒性試験、生殖発生毒性試験に広く用いられ、かつ、その特性がよく知られており、背景資料が豊富であることから選択した。

6.4 試験動物

Sprague-Dawley 系 SPF ラット〔Crl:CD(SD)、日本チャールス・リバー株式会社、厚木飼育センター〕の雄 62 匹及び雌 83 匹をそれぞれ 8 週齢で入手[注)]し、入荷日を馴化 1 日と起算して、3 日間の検疫期間を含む 21 日間の馴化飼育を行った。その間、一般状態の観察（1 回/日）、体重測定（馴化 1、3、10、17 及び 21 日の 5 回）、詳細な一般状態の観察（群分け 4 日前の馴化 17 日に 1 回）を実施した。更に、雄について馴化終了日に陰嚢内の精巣の触診及び陰茎亀頭の観察を実施し、雌については腟垢を検疫期間終了後群分け日まで採取して性周期（検疫期間終了後 14 日間）を調べた。そ

の結果、外傷が雄 1 例（耳標番号：512）に、性周期の異常が 5 例（耳標番号：578、595、612、622、639）にみられた。それらの異常例を除き、検疫・馴化期間中の一般状態、詳細な一般状態、体重推移、精巣の触診結果及び性周期に異常がなく、性成熟に達した陰茎亀頭であり、健康と思われる雄 61 匹中 48 匹及び雌 78 匹中 68 匹を選択し、11 週齢で投与を開始した。投与開始時の体重の変動範囲は雄で 382~442 g（平均体重：410 g）、雌は 226~282 g（平均体重：250 g）であり、雌雄それぞれ平均体重の±20%以内であった。

なお、動物は検疫・馴化期間中の体重増加量（入荷日~群分け時）により選別後、群分け当日（投与開始の前日）の体重に基づいて、非交配群も含め各群の平均体重ができるだけ均等となるよう各群に割付けた。個体の割付けはコンピュータを用いたブロック配置法及び無作為抽出法の組み合わせ（ブロック配置法で必要な群を構成し、試験群及び群内の個体番号を無作為に割当てた）により行った。供試個体の選択条件を満たして余剰となった雌は交配予備動物（無処置動物）として継続飼育したが、使用しなかったため、交配予備動物は全て交配終了後に試験から除外した。その他の雌雄残余動物は群分け当日に試験から除外した。なお、試験から除外された動物は、動物管理部門に移管した（移管日：2015 年 9 月 22 日及び 10 月 28 日）。

注）：試験計画書に従い、動物発注数は雄 60 匹及び雌 80 匹であったが、実際には雄 62 匹及び雌 83 匹が納入された。

6.5 飼育条件

動物は温度 23±3°C（実測値：23~25°C）、相対湿度 50±20%（実測値：47~56%）、換気回数 10~15 回/h、照明 12 時間/日（07:00~19:00）の動物飼育室（飼育室番号：907 号室）で飼育した。動物は床敷（ALPHA-dri、Shepherd Specialty Papers Inc.、ロット番号：02115、03115、05115）を入れたプラスチックケージ（W440×D275×H180 mm：株式会社羽生精密）に、検疫・馴化期間中は同性 2 匹ずつ（なお、雌については入荷匹数が奇数であったため、最後のケージは 3 匹で飼育）、群構成以降は仕切り板を入れて 2 区分とし、それぞれの区画で個別収容した。ただし、交尾成立雌は床敷（ALPHA-dri、Shepherd Specialty Papers Inc.、ロット番号：05115）を入れたプラスチック製エコンケージ（W340×D400×H185 mm：日本クレア株式会社）に 1 腹単位で収容した。また、動物試験期間中毎週 1 回、エンリッチメントとして、7979C.CS certified/ irradiated Diamond Twists (Halan Laboratories, Inc.、ロット番号：7979C-040715P)を与えた。

飼料は NMF 固形（放射線滅菌、オリエンタル酵母工業株式会社、ロット番号：150316、150622、150707、150824）をステンレス製給餌器により自由に摂取させた。

飲料水は御殿場市営水道水を自動給水装置（プラスチックケージでの飼育時）又は給水瓶（プラスチック製エコンケージでの飼育時）により自由に摂取させた。

飼料及び床敷中の混入物質の分析に関しては、使用したロットについて Eurofins Food and Product Testing 及び N·P Analytical Laboratories で実施した分析結果を入手

した。飲料水については、水道法に準拠した施設全体の水質の分析を定期的（年 4 回）に芝浦セムテック株式会社に依頼して得られたデータを入手した。また、使用したロットについて Diamond Twists の汚染物質に関する分析書を入手した。これらのデータにより飼料、床敷及び飲料水並びにエンリッチメント中の混入物質が試験成績に影響を与える可能性のないことを確認し、分析報告書の写しを保存した。

6.6　動物の識別

動物は番号（雄：500~561、雌：562~644）が刻印された耳標を入荷時に装着し、個体識別を行った。また、検疫・馴化期間中に耳標番号の若い動物の尾に油性インクによる記号を記入し、補助識別とした。群分け後は、1000 の位は群（対照群、低、中及び高用量の順）、100 の位は性別（0 番を雄、1 番を雌）、10 と 1 の位は個体番号を示す 4 桁の動物番号を設定した。各飼育ケージに投与量（群）ごとに色分けしたケージラベルをつけ、試験番号、投与経路、投与量、性別、動物番号、耳標番号、剖検予定日（雄及び非交配群の雌）、交尾成立日（交配群の雌雄）及び分娩日（交配群の雌）を明記した。

6.7　投与経路、投与期間及び投与回数並びに回復期間とそれらの選択理由

投与経路は毒性試験法ガイドラインに準じ、経口投与を選択した。投与期間は、投与日数として、交配群雌雄ともに交配前 14 日、更に、雄については交配開始後 28 日（計 42 日）、雌については交配期間及び妊娠期間を通して授乳 4 日まで（計 41~47 日）とした。非交配群の雌については 42 日とした。回復動物については、42 日の投与期間が終了した後、被験物質投与に起因した変化の可逆性、持続性並びに遅発性毒性等について観察するため、14 日間の回復期間を設けた。投与回数は反復投与試験で一般的に行われている 1 日 1 回とした。

6.8　投与方法

投与方法は、げっ歯類の経口投与に際して一般的な強制経口投与とした。投与容量は 5.0 mL/kg 体重とし、胃ゾンデを用いて投与液を 08:06~12:06 の間に投与した。ただし、投与時に分娩途中であった動物は分娩終了を待って、13:53~16:19 の間に投与した。対照群には媒体のみを同様に投与した。個体ごとの投与液量は、直近の体重を基準に算出した。

6.9　投与量及び群構成

投与量は 100、300 及び 1000 mg/kg の 3 用量とし、試験群はこれらの用量群に媒体を投与する対照群を加え 4 群構成とした。1 群当たりの動物数は交配を行う交配群として各群で雌雄各 12 匹、交配しない非交配群として対照群及び高用量群で雌各 10 匹とした。なお、対照群及び高用量群における雄の群内番号 8 番以降、非交配群雌の群

内番号 6 番以降の各 5 匹は、最終投与終了日以降、回復動物とした。群構成を表 1-1.及び 1-2.に示した。

表 1-1.群構成（雄）

試験群	投与量 (mg/kg)	被験液濃度 (mg/mL)	投与容量 (mL/kg)	交配群			
				投与終了時剖検群		回復終了時剖検群	
				動物数	動物番号	動物数	動物番号
対照群	0	0	5.0	7	1001-1007	5	1008-1012
低用量群	100	20	5.0	12	2001-2012		
中用量群	300	60	5.0	12	3001-3012		
高用量群	1000	200	5.0	7	4001-4007	5	4008-4012

表 1-2.群構成（雌）

試験群	投与量 (mg/kg)	被験液濃度 (mg/mL)	投与容量 (mL/kg)	交配群		非交配群			
				投与終了時剖検群		投与終了時剖検群		回復終了時剖検群	
				動物数	動物番号	動物数	動物番号	動物数	動物番号
対照群	0	0	5.0	12	1101-1112	5	5101-5105	5	5106-5110
低用量群	100	20	5.0	12	2101-2112				
中用量群	300	60	5.0	12	3101-3112				
高用量群	1000	200	5.0	12	4101-4112	5	6101-6105	5	6106-6110

6.10　投与量の設定根拠

本試験の投与量は、先に実施した「2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた 14 日間反復経口投与毒性試験（投与量設定試験）、株式会社ボゾリサーチセンター、試験番号：N-R050、投与量：250、500 及び 1000 mg/kg/day」[2]の結果（Attached Data 6）を参考に設定した。投与量設定試験では、いずれの群においても死亡例はみられず、一般状態、体重、摂餌量、血液学検査及び剖検所見においても、各被験物質投与群の雌雄ともに被験物質投与の影響が疑われる変化はみられなかった。しかし、500 mg/kg 以上の投与群の雄で精巣重量に高値が、1000 mg/kg 投与群の雌で ALP 活性の高値及び総たん白質の低値が認められた。したがって、本試験では毒性試験法ガイドラインに示されている限度試験の最高投与量である 1000 mg/kg を高用量とし､以下公比約 3 で除して 300 及び 100 mg/kg をそれぞれ中及び低用量に設定した。

6.11　観察及び検査の方法

試験日の起算は、投与開始日を投与 1 日、投与 1 日から 7 日を投与 1 週、回復開始日（投与 42 日の翌日）を回復 1 日、回復 1 日から 7 日を回復 1 週、交尾成立日を妊娠 0 日、分娩終了日（出産日）を授乳 0 日、出生日を生後 0 日とし、以下に示す項目について、それぞれ記載の時期に観察及び検査を実施した。

6.11.1　一般状態の観察

全個体について、投与期間中は毎日 3 回（投与前、投与直後及び投与 1~3 時間後）、回復期間中は毎日 2 回（午前・午後）、剖検日は 1 回（午前）、それぞれ生死、身体の外観、姿勢、行動及び排泄物（尿、糞）などの一般状態における異常の有無を観察した。なお、投与 2 日以降の動物のハンドリングを伴った定期的な観察は、詳細な一般状態の観察と兼ねて行った。

6.11.2　詳細な一般状態の観察、機能検査、握力及び自発運動量の測定

詳細な一般状態の観察は全個体について行った。雄及び非交配群は投与期間中及び回復期間中毎週 1 回、交配群雌は交配前投与期間中毎週 1 回、交配期間中、妊娠期間中及び授乳期間中は指定された日（交尾動物は妊娠 1、7、14 及び 20 日、未交尾動物は交配開始後 6 及び 13 日、分娩動物は授乳 4 日）にそれぞれ行った。

機能検査、握力測定及び自発運動量測定は、各群の 5 匹（雄の群内番号 8~12 番、交配群雌の各群の分娩順で動物番号が若い順[注]、非交配群の群内番号 6~10 番）について行った。投与期間中は交配群の雌で授乳 4 日（投与 41~43 日）に、その他は投与期間終了週（投与 6 週、雄：投与 41 日、雌：投与 42 日）に、回復期間中は対照群及び高用量群の雌雄で回復期間終了週（回復 2 週、雄：回復 13 日、雌：回復 14 日）に行った。

上記の観察、検査及び測定は、動物をランダムに配置し、観察者に対して投与量などの情報を制限（ブラインド化）した状態で行った。ただし、自発運動量測定に関しては、ブラインド化を行わなかった。なお、詳細な一般状態の観察及び機能検査の観察・検査結果について、実数データ以外はスコア化した評点法を用いて記録した。

注：交配群雌の検査対象動物を以下に示した。

試験群	動物番号
対 照 群	1101、1103、1105、1107、1110
低用量群	2102、2106、2107、2111、2112
中用量群	3101、3107、3109、3110、3111
高用量群	4102、4103、4106、4110、4111

1)　詳細な一般状態の観察

ケージ内観察は姿勢、痙攣、異常行動を、手に持っての観察はケージからの取り出し易さ、被毛・皮膚の状態、眼・鼻の分泌物、眼球突出、眼瞼閉鎖状態、可視粘膜、自律神経機能（流涙、流涎、立毛、瞳孔径、異常呼吸）、ハンドリングに対する反応、ハンドリング時の発声を、オープンフィールド内観察は覚醒状態、痙攣、異常行動、常同行動、歩行、姿勢、身繕い、立ち上がり回数、排泄物（排糞数、排尿）を調べた。

2)　機能検査

検査は聴覚反応、接近反応、接触反応、痛覚反応、瞳孔反射、空中正向反射、着地開脚幅とした。

3)　握力測定

機能検査に引き続き、CPU ゲージ MODEL-RX-5（アイコーエンジニアリング株式会社）を用いて前肢及び後肢の握力を測定した。

4)　自発運動量の測定

握力測定に引き続き、実験動物用自発運動センサーNS-AS01（株式会社ニューロサイエンス）を用いて自発運動量を測定した。測定時間は 1 時間とし、10 分間隔及び 0~60 分の測定値を集計した。

6.11.3　体重測定

全個体について、交配群の雄及び非交配群の雌は投与 1、8、15、22、29、36、42 日及び剖検日に、回復動物は更に回復 1、8、14 日及び剖検日に、交配群の雌は投与 1、8、15 及び 22 日、妊娠 0、7、14 及び 20 日、授乳 0 及び 4 日並びに剖検日に体重を測定した。なお、投与後に分娩が終了した母動物の授乳 0 日の体重測定（13:23~16:41 の間）を除き、体重測定は測定日の 07:11~10:49 の間（投与期間中は投与前）に行った。剖検日には、前日から約 16 時間絶食させた後、相対器官重量算出に備えて体重を 07:11~08:24 の間に測定した。また、交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物については、搬出前に体重を測定したが統計解析からは除外した。

6.11.4　摂餌量測定

全個体について、交配群の雄及び非交配群の雌は投与 2、8、15、30、36 及び 42 日に、回復動物は更に回復 2、8 及び 14 日に、交配群の雌は投与 2、8 及び 15 日、妊娠 1、7、14 及び 20 日並びに授乳 2 及び 4 日に残餌量を測定し、前日の給餌量との差から 1 匹当たりの 1 日摂餌量を算出した。給餌量及び残餌量の測定は測定日の 07:14~11:33 の間（投与期間中は投与前）に行った。

6.11.5　腟垢検査

投与期間中は交配群の雌の全個体について、投与開始日から交尾成立まで毎日（午前）腟垢を採取し、交配前投与期間中の標本について多数の角化上皮細胞から成る腟垢像を発情の指標とし、発情回数及び発情期から次の発情期までの日数（性周期）、観察雌個体数に対する性周期異常を示した個体数の割合を調べた。交配期間中は腟垢内の精子の有無を調べるのに加え腟垢像を発情前期(P)、発情期(E)、発情後期(M)及び発情休止期(D)に分類したが、データは参考とした。

なお、P→E→M→D（→P）の順序で周期的変化を示し、4 又は 5 日の周期を繰り返す個体を正常、それ以外を性周期異常とした。

6.11.6　交配方法

交配前投与期間終了後、交配群の同投与群内の雌雄を 1:1 で終夜同居させ、翌朝、腟栓形成あるいは腟垢中に精子を確認したものを交尾成立とみなした。交配期間中、交配に際しては雄を金網ケージに移し、同居は雌を雄のケージへ移すことにより行った。交配開始日を 0 日と起算して交尾までに要した日数を求めた。同一雌雄による同居期間は最長 14 日間であった。14 日間の交配で交尾が成立しなかった雌（動物番号 2101）は交配期間終了日を妊娠 0 日と仮定して一般状態の観察、体重及び摂餌量測定並びに投与を継続し、25 日後にイソフルラン麻酔下で採血後、腹大動脈切断により放血致死させ、病理学検査に供した。交尾不成立雌動物については、仮定した妊娠日に基づくデータは統計解析より除外した。

6.11.7　分娩及び哺育観察

1)　母動物の観察

交尾成立雌動物は、妊娠 21 日から妊娠 25 日の午前まで 1 日 2 回（午前・午後、妊娠 25 日は午前に 1 回）、分娩の有無並びにその終了を確認するとともに分娩状態（胎盤の処理及び出産児の状態）を観察した。交尾成立から分娩終了までを妊娠期間とし、妊娠期間を 0.5 日単位で求めた。なお、分娩終了の確認は 17:00 までとした。

分娩が終了した母動物は授乳 4 日まで出生児を哺育させ、児集め、営巣及び授乳を指標として哺育状態を観察し、授乳 5 日に病理学検査に供した。なお、授乳期間中に全哺育児が死亡した母動物（動物番号 4109）は、その時点で、体重を測定し、イソフルラン麻酔下で採血後、腹大動脈切断により放血致死させ、病理学検査に供した。

妊娠 25 日の午前までに分娩しなかった雌動物（動物番号 1109、4104）は、イソフルラン麻酔下で採血後、腹大動脈切断により放血致死させ、剖検を行った結果、着床は認められなかったため不妊と判断した。不妊動物については妊娠期間中のデータは統計解析より除外した。

2)　出生児の観察

生後 0 日に出生児数及び死産児数を数え、合わせて出産児数とした。出産児は口腔内を含む外表異常[注)]の有無を肉眼的に観察して性別を確認した。出生児は体重を個体別に測定した後、母動物に哺育させた。死産児はブアン液で固定して保存した。

生後 4 日まで毎日 1 回、死亡児の有無を確認した。死亡児は肉眼による異常の有無を観察した後、ブアン液で固定して保存した。生後 4 日に全生存児の性別を確認し、個体別に体重を測定した。口腔内を含む外表異常の有無を肉眼的に観察した後、イソフルラン深麻酔下でブアン液に浸漬し、固定して保存した。

注）：頭部の陥没や裂、顔面の鼻吻や上下顎、口唇のゆがみや裂、眼瞼や耳介の大きさ、形状、左右のバランス、胸胴部のゆがみや大きさ、内部臓器の突出、尾部の長さ、形状、数、欠損、四肢部の長さ、形状、指の数、欠損及び左右のバランスに注意して観察し、正常と異なる場合を異常とした。

6.11.8　尿検査及び摂水量測定

投与期間終了週（投与 6 週、投与 37~38 日）及び回復期間終了週（回復 2 週、回復 9~10 日）に検査を実施した。投与期間中は検査当日の投与後に各群の 5 匹（雄の群内番号 8~12 番、非交配群の群内番号 6~10 番）について、回復期間中は回復動物の全個体について、それぞれ採尿器をセットしたケージに収容し、絶食・自由摂水下で 4 時間尿を、次いで自由摂食・自由摂水下でその後の 20 時間尿を採取した。検査項目を表 2.に示した。採取した最初の 4 時間尿について pH 以下沈渣までの検査と尿量を、その後に得られた 20 時間尿について浸透圧、電解質（ナトリウム、カリウム及び塩素）及び尿量の測定を行った。尿量は 4 時間の尿量と 20 時間の尿量を合計して 1 日量を算出した。電解質は 20 時間尿について濃度を測定し、測定濃度と 24 時間の尿量から 1 日当たりの排泄量を算出した。

また、尿検査時には、前日からの 1 日当たりの摂水量を、給水瓶を用いて重量法（1 g = 1 mL とみなした）で測定した。

表 2.尿検査の項目、測定法及び使用機器など

検査項目	測定方法
pH	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
たん白質	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
ケトン体	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
グルコース	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
潜血	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
ビリルビン	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
ウロビリノーゲン	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙［ｼｰﾒﾝｽﾍﾙｽｹｱ･ﾀﾞｲｱｸﾞﾉｽﾃｨｸｽ株式会社］ a)
色調	肉眼観察
沈渣	鏡検法
尿量（4 時間量）	目盛付スピッツ管を用いた容量測定（単位：mL）
浸透圧	氷点降下法 b)（単位：mOsm/kg）
ナトリウム	イオン選択電極法 c)（単位：mmol/24h）
カリウム	イオン選択電極法 c)（単位：mmol/24h）
塩素	イオン選択電極法 c)（単位：mmol/24h）
尿量（20 時間量）	メスシリンダーを用いた容量測定（単位：mL）
摂水量（24 時間量）	重量測定（単位：mL/24h）

使用測定機器
a)：尿自動分析装置　クリニテック 500（Siemens Healthcare Diagnostics Inc., Illinois, USA）
b)：自動浸透圧測定装置 オートアンドスタット OM-6060（アークレイ株式会社）
c)：臨床化学自動分析装置　TBA-120FR 形（東芝メディカルシステムズ株式会社）

6.11.9　血液学検査

全例について、剖検前日（最終投与日あるいは回復 14 日）から一夜（16~19 時間）絶食させた。そのうちの各群雌雄各 5 匹（動物番号が若い順、ただし、交配群雌は分娩順の 5 匹注）について、イソフルラン麻酔下に開腹し、腹大動脈から EDTA-2K 加採血瓶（SB-41：シスメックス株式会社）に血液を採取した。得られた血液について、次の表 3.-1)に記載した項目及び方法により検査した。なお、採血した全例について、May-Grünwald-Giemsa 染色法による血液塗抹標本を作製した。また、3.8%クエン酸ナトリウム溶液加試験管（血液 9 容に対し 1 容の割合）に採取した血液を遠心分離（3,000 rpm、1,600×g、10 分間）し、得られた血漿について表 3.-2)に記載の項目及び方法により検査した。交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物についても採血し同様に検査したが、その成績は統計解析から除外した。

注：交配群雌の検査対象動物を以下に示した。

試験群	動物番号
対 照 群	1101、1103、1105、1107、1110
低用量群	2102、2106、2107、2111、2112
中用量群	3101、3107、3109、3110、3111
高用量群	4102、4103、4106、4110、4111

表 3.血液学検査の項目、測定法及び使用機器など

1）EDTA-2K 加血液についての検査		
検査項目	測定方法	単位
赤血球数(RBC)	2 角度レーザーフローサイトメトリー法 a)	10^4/μL
ヘモグロビン量(HGB)	シアンメトヘモグロビン変法 a)	g/dL
ヘマトクリット値(HCT)	赤血球数及び平均赤血球容積から算出 a)	%
平均赤血球容積(MCV)	2 角度レーザーフローサイトメトリー法 a)	fL
平均赤血球血色素量(MCH)	赤血球数及びヘモグロビン量から算出 a)	pg
平均赤血球血色素濃度(MCHC)	ヘモグロビン量及びヘマトクリット値から算出 a)	g/dL
網赤血球率(RETIC)	RNA 染色によるレーザーフローサイトメトリー法 a)	%
血小板数(PLT)	2 角度レーザーフローサイトメトリー法 a)	10^4/μL
白血球数(WBC)	2 角度レーザーフローサイトメトリー法 a)	10^2/μL
白血球百分率注)	ペルオキシダーゼ染色によるフローサイトメトリー法 +2 角度レーザーフローサイトメトリー法 a)	%
白血球各細胞の絶対数注)	ペルオキシダーゼ染色によるフローサイトメトリー法 +2 角度レーザーフローサイトメトリー法 a)	10^2/μL
2）クエン酸ナトリウム加血液から分離した血漿についての検査		
検査項目	測定方法	単位
プロトロンビン時間(PT)	クロット法 b)	s
活性化部分トロンボプラスチン時間(APTT)	クロット法 b)	s
フィブリノーゲン量(FIB)	トロンボプラスチン法 b)	mg/dL
使用測定機器 a)：総合血液学検査装置　アドヴィア 120（Siemens Healthcare Diagnostics Inc., Illinois, USA） b)：血液凝固自動分析装置　ACL Elite Pro（Instrumentation Laboratory, MA, USA）		
注）：好中球(Neut.)、好酸球(Eosino.)、好塩基球(Baso.)、リンパ球(Lymph.)、単球(Mono.)及び大型非染色球(LUC)		

6.11.10　血液化学検査

血液学検査用試料と同時に採取した血液を凝固促進剤入り試験管（ベノジェクト II-オートセップ：テルモ株式会社）に採り、遠心分離（3,000 rpm、1,670×g、10 分間）し、得られた血清について表 4.-1)に記載の項目及び方法により検査した。また、ヘパリン加試験管（血液 1 mL 当たり約 20 単位のヘパリン）に採取した血液を遠心分離（3,000 rpm、1,600×g、10 分間）して得られた血漿について表 4.-2)に記載の項目及び方法により検査した。交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物についても同様に検査したが、その成績は統計解析から除外した。血清の一部（交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物を除く）は血中ホルモン測定に備え、約 0.5 mL×3 本をサンプルチューブに分注し、−80°C の冷凍庫（許容範囲：−70°C 以下）に保存した。

表 4.血液化学検査の項目、測定法及び使用機器など

1）分離した血清についての検査		
検査項目	測定方法	単位
ALP	Bessey-Lowry 法 [a)]	IU/L
総胆汁酸（T-BA）	3α-ヒドロキシステロイドデヒドロゲナーゼ [a)]	μmol/L
総コレステロール(T-CHO)	CEH-COD-POD 法 [a)]	mg/dL
トリグリセライド(TG)	LPL-GK-GPO-POD 法 [a)]	mg/dL
リン脂質(PL)	PLD-ChOD-POD 法 [a)]	mg/dL
総ビリルビン(T-BIL)	ビリルビンオキシダーゼ法 [a)]	mg/dL
グルコース(GLU)	グルコースデヒドロゲナーゼ法 [a)]	mg/dL
尿素窒素(BUN)	Urease-LEDH 法 [a)]	mg/dL
クレアチニン(CRNN)	Creatininase-creatinase-sarcosine oxidase-POD 法 [a)]	mg/dL
ナトリウム(Na)	イオン選択電極法 [a)]	mmol/L
カリウム(K)	イオン選択電極法 [a)]	mmol/L
塩素(Cl)	イオン選択電極法 [a)]	mmol/L
カルシウム(Ca)	OCPC 法 [a)]	mg/dL
無機リン(P)	PNP-XOD-POD 法 [a)]	mg/dL
総たん白質(TP)	Biuret 法 [a)]	g/dL
アルブミン(ALB)	BCG 法 [a)]	g/dL
A/G 比	総たん白質及びアルブミンから算出	
2）ヘパリン加血液から分離した血漿についての検査		
検査項目	測定方法	単位
AST	UV-rate 法 [a)]	IU/L
ALT	UV-rate 法 [a)]	IU/L
LDH	UV-rate 法 [a)]	IU/L
γ-GTP	L-γ-グルタミル-3-カルボキシ-4-ニトロアニリド法 [a)]	IU/L
使用測定機器 a)：臨床化学自動分析装置　TBA-120FR 形（東芝メディカルシステムズ株式会社）		

6.11.11　血中ホルモン測定

他の観察及び検査結果から下垂体-甲状腺系への影響が認められなかったため 6.11.10 で得られた血清について血中ホルモン（T_3、T_4 及び TSH）測定は実施しなかった。

6.11.12　病理学検査

1)　剖検及び器官重量測定

最終投与翌日及び回復期間終了日に全ての生存動物について、採血した動物は採血後に、その他の動物はイソフルラン麻酔下で、腹大動脈切断により放血致死させ、それぞれ体外表並びに頭部、胸部及び腹部の器官・組織の肉眼検査を行った。交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物については、採血して放血致死させた後に剖検を行った。なお、母動物については剖検時に黄体数及び着床痕数を数えた。次いで、全例について、以下に示す器官の重量を測定した。それら器官重量（絶対重量）と剖検時の体重から体重 100 g 当たりの相対重量を算出した。なお、*印をつけた両側性の器官については左右別々に測定し、その合計値で評価した。また、交尾不成立雌動物、妊娠 25 日未分娩動物及び授乳期間中に全哺育児が死亡した母動物についても同様に器官重量を測定したが、剖検日の体重も含め統計解析の対象から除外した。

脳、下垂体、甲状腺*（上皮小体を含む）、副腎*、胸腺、脾臓、心臓、肝臓、腎臓*、精巣*、精巣上体*、前立腺、精嚢（凝固腺を含む）、卵巣*、子宮

2)　病理組織学検査

全ての個体について､以下に示す全検査対象器官/組織をリン酸緩衝 10%ホルマリン液で固定し、保存した。固定時に肺にはリン酸緩衝 10%ホルマリン液を注入した。ただし、眼球、視神経はリン酸緩衝液で調製した 3%グルタルアルデヒド・2.5%ホルマリン液で固定後、精巣及び精巣上体はブアン液で固定した後、リン酸緩衝 10%ホルマリン液に置換し保存した。次いで、投与終了時及び回復終了時の計画剖検時に採血を実施した各群雌雄各 5 匹（動物番号が若い順、ただし、交配群雌は分娩順の 5 匹）、並びに交尾不成立雌雄動物、妊娠 25 日未分娩動物（その交配相手雄を含む）及び授乳期間中に全哺育児が死亡した母動物についてパラフィン包埋した後、切片とし（下線を施した器官・組織は固定・保存のみとした）、ヘマトキシリン・エオジン（H・E）染色標本を作製した。鏡検は、まず投与終了時剖検群における対照群及び高用量群の採血を行った動物並びに交尾不成立雌雄動物、妊娠 25 日未分娩動物（その交配相手雄を含む）及び授乳期間中に全哺育児が死亡した母動物の全検査対象器官/組織について行った。両側性の器官については両側を摘出し、坐骨神経、眼球、副腎、顎下腺、腎臓、乳腺（鼠径部）、大腿骨（骨髄を含む）及び大腿部骨格筋は片側、甲状腺、上皮小体（ただし、一部の動物については片側で評価した）、精巣、卵巣、精巣上体及び精嚢（凝固腺含む）は両側並びに子宮は両角部を鏡検した。なお、舌下腺、視神経及び皮膚（鼠径部）については、試験計画書に従い H･E 染色標本作製までとし、病理組織学検査は実施しなかった。その結果、高用量群の雌雄ともに被験物質投与によると考えられる変化はみられなかったため、その他の中及び低用量群並びに回復動物については、鏡検しなかった。

大脳、小脳（橋を含む）、坐骨神経、脊髄（胸部）、眼球、視神経、ハーダー腺、下垂体、甲状腺、上皮小体、副腎、胸腺、脾臓、顎下リンパ節、腸間膜リンパ節、心臓、胸大動脈、気管、肺（気管支を含む）、舌、喉頭、食道、胃、十二指腸、空腸、回腸（パイエル板を含む）、盲腸、結腸、直腸、顎下腺、舌下腺、肝臓、膵臓、腎臓、膀胱、精巣、卵巣、精巣上体、子宮、腟、前立腺、精嚢（凝固腺を含む）、皮膚（鼠径部）、乳腺（鼠径部）、胸骨（骨髄を含む）、大腿骨（骨髄を含む）、大腿部骨格筋、個体識別部（耳標を装着した耳介）

6.12　統計解析

6.12.1　パラメータの算出

以下の式により性周期異常率、交尾率、授精率、受胎率及び出産率、生後 0 及び 4 日の性比を群ごとに、妊娠期間、着床前死亡率、着床率、分娩率、外表異常率、出生率、生後 4 日生存率を母動物（腹）ごとに算出した。なお、出生児の体重については母動物ごと雌雄別に平均値を求めた。

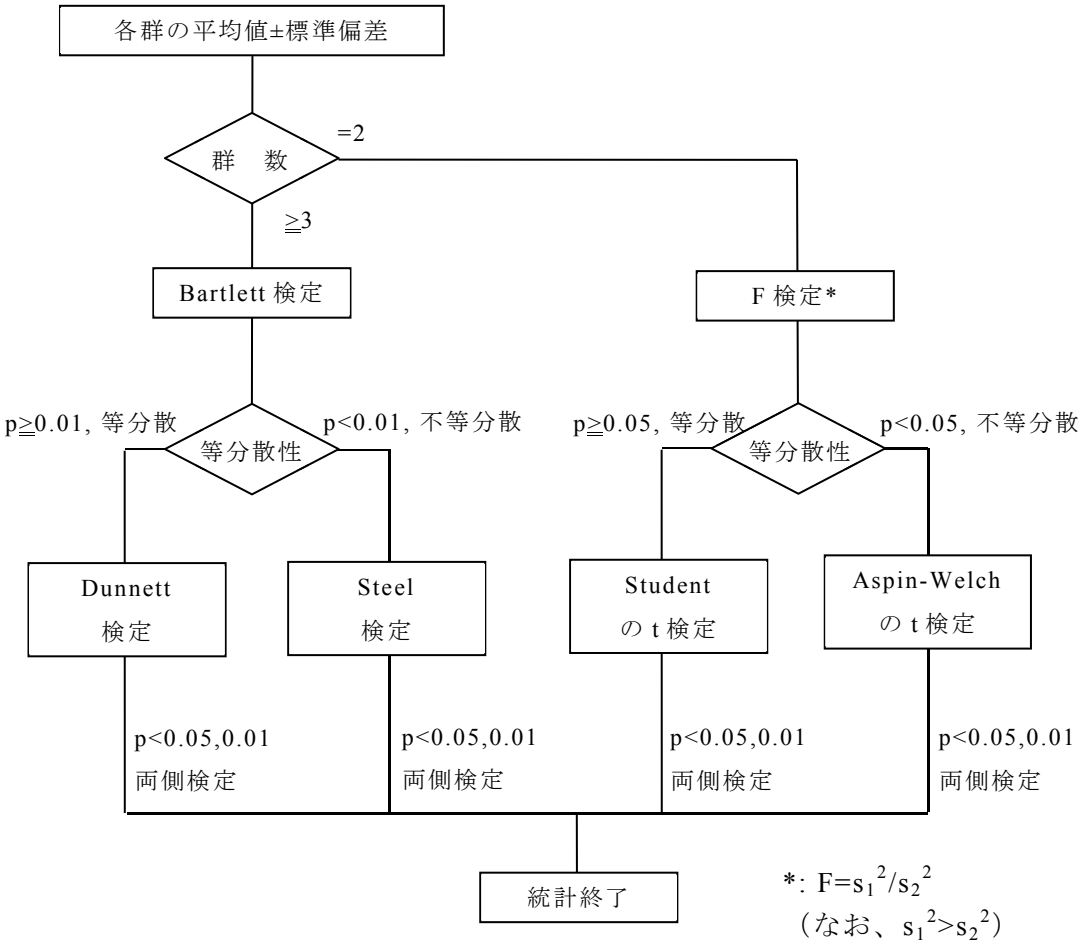
性周期異常率(%) =（性周期異常を示した個体数/観察雌個体数）×100
交尾率(%) =（交尾動物数/同居動物数）×100
授精率(%) =（雌を妊娠させた雄の数/交尾した雄の数）×100
受胎率(%) =（妊娠した雌の数/交尾した雌の数）×100
出産率(%) =（出生児出産雌数/妊娠雌数）×100
妊娠期間(日) = 妊娠 0 日から分娩した日までの日数
着床前死亡率(%) =〔（黄体数−着床痕数）/黄体数〕×100
着床率(%) =（着床痕数/黄体数）×100
分娩率(%) =（出産児数/着床痕数）×100
外表異常率(%) =（外表異常児数/出産児数）×100
出生率(%) =（出生児数/出産児数）×100
生後 4 日生存率(%) =（生後 4 日の生存児数/出生児数）×100
生後 0 日（死産児含む）の性比(%) =（雄出産児数/出産児数）×100
生後 0 日（出生児）の性比(%) =（雄出生児数/出生児数）×100
生後 4 日の性比(%) =（生後 4 日の雄生存児数/生後 4 日の生存児数）×100

6.12.2　検定

対照群と各用量群との差について以下の手法により統計学的有意性の検定を行った。なお、交尾不成立雌は交尾率にのみ含め、交配開始後のデータは統計解析より除外した。解析には SAS Release 9.1.3（SAS Institute Inc.）を使用した。

体重、体重増加量（雄及び非交配群雌：投与 1~42 日及び回復 1~14 日、交配群雌：投与 1~15 日、妊娠 0~20 日及び授乳 0~4 日、出生児：生後 0~4 日）、摂餌量（総摂餌量含む）、摂水量、発情期像発現回数、性周期（発情周期）、交尾までに要した日数、

妊娠期間、黄体数、着床痕数、生存児数、オープンフィールド内観察（排糞数、立ち上がり回数）、機能検査（着地開脚幅）、握力及び自発運動量、尿検査の定量的項目、血液学検査、血液化学検査及び器官重量（含、剖検時体重）は、群ごとに平均値及び標準偏差を求め、次に示す模式図の方法に従って検定した[3] [4] [5]。



着床前死亡率、着床率、分娩率、外表異常率、出生率及び生後 4 日生存率並びに空中正向反射スコアについては、母動物ごとに率を求めた後、群ごとに平均値及び標準偏差を求め、Wilcoxon の順位和検定（有意水準 0.05 及び 0.01、両側）を行った[6]。

性周期異常率、交尾率、授精率、受胎率及び出産率、性比（生後 0 及び 4 日）並びに聴覚反応、接近反応、接触反応、痛覚反応及び瞳孔反射の各反応・反射スコアは、各群の性周期異常を示した個体数、交尾動物数、雌を妊娠させた雄動物数、妊娠雌動物数、出生児出産雌動物数、雌雄児数、正常反応・反射のみられた動物数より算出し、Fisher の直接確率計算法により検定（有意水準 0.05 及び 0.01、両側）を行った[7]。

7. 試験結果

7.1 一般状態（Table 1-1~1-11、Appendix 1-1~1-34）

いずれの投与群においても死亡動物はみられなかった。

1) 投与期間

雄及び非交配群雌では、いずれの動物にも異常はみられなかった。

交配群雌では、いずれの動物にも哺育状態を含め異常はみられなかったが、1000 mg/kg 投与群の 1 例（動物番号 4109）で授乳 1 日に全哺育児が死亡した。

2) 回復期間

いずれの動物にも異常はみられなかった。

7.2 詳細な一般状態の観察、機能検査、握力測定及び自発運動量の測定（Fig. 1~5、Table 2-1~2-171、Appendix 2-1~2-344）

7.2.1 ホームケージ内観察（Table 2-1~2-23、Appendix 2-1~2-72）

1) 投与期間

いずれの動物にも異常はみられなかった。

2) 回復期間

いずれの動物にも異常はみられなかった。

7.2.2 手に持っての観察（Table 2-24~2-82、Appendix 2-73~2-144）

1) 投与期間

いずれの動物にも妊娠中及び授乳中を含め、被験物質投与に関連すると考えられる異常はみられなかった。

2) 回復期間

いずれの動物にも被験物質投与に関連すると考えられる異常はみられなかった。

7.2.3 オープンフィールド内観察（Table 2-83~2-151、Appendix 2-145~2-288）

1) 投与期間

いずれの動物にも妊娠中及び授乳中を含め、被験物質投与に関連すると考えられる異常はみられず、立ち上がり回数及び排糞の個数には対照群と各被験物質投与群との間に有意差は認められなかった。

2) 回復期間

いずれの動物にも被験物質投与に関連すると考えられる異常はみられず、立ち上がり回数及び排糞の個数には対照群と 1000 mg/kg 投与群との間に有意差は認められなかった。

7.2.4　機能検査（Table 2-152~2-161、Appendix 2-289~2-316）

1)　投与期間終了週検査

いずれの動物にも聴覚反応、接近反応、接触反応、痛覚反応、瞳孔反射及び空中正向反射に異常はみられず、着地開脚幅には対照群と各被験物質投与群との間に有意差は認められなかった。

2)　回復期間終了週検査

いずれの動物にも聴覚反応、接近反応、接触反応、痛覚反応、瞳孔反射及び空中正向反射に異常はみられず、着地開脚幅には対照群と 1000 mg/kg 投与群との間に有意差は認められなかった。

7.2.5　握力（Table 2-162~2-166、Appendix 2-317~2-330）

1)　投与期間終了週測定

対照群と各被験物質投与群との間に有意差は認められなかった。

2)　回復期間終了週測定

対照群と 1000 mg/kg 投与群との間に有意差は認められなかった。

7.2.6　自発運動量（Fig. 1~5、Table 2-167~2-171、Appendix 2-331~2-344）

1)　投与期間終了週測定

いずれの投与群にも被験物質投与に関連すると考えられる変化はみられなかった。

なお、非交配群雌の 1000 mg/kg 投与群で 10-20 分の間の運動量及び 0-60 分の間の総運動量に対照群と比べ有意な高値が認められたが、雄及び交配群雌に同様の傾向はみられず、試験施設の背景値（10-20 分：335±78、0-60 分：1519±588、Mean±2S.D.、N=65、2011/04-2015/03）に収まる正常範囲内の変動であることから、偶発的な有意差と判断した。

2)　回復期間終了週測定

1000 mg/kg 投与群の雌雄とも対照群との間に有意差は認められなかった。

7.3　体重（Fig. 6~12、Table 3-1~3-7、Appendix 3-1~3-22）

1)　投与期間

雄及び非交配群雌では、各被験物質投与群ともに投与期間を通じて対照群と同様な体重推移を示し、有意差は認められなかった。

交配群雌では、交配前、妊娠及び授乳の各期間中、各被験物質投与群ともに対照群と同様な体重推移を示し、有意差は認められなかった。

2)　回復期間

1000 mg/kg 投与群の雌雄とも対照群との間に有意差は認められなかった。

7.4　摂餌量（Fig. 13~19、Table 4-1~4-7、Appendix 4-1~4-22）

1)　投与期間

雄では、対照群と比べ 100 mg/kg 投与群で投与 36 日に有意な低値、300 mg/kg 投与群で投与 15 日に有意な高値が認められたが、用量に依存しない変化であった。300 及び 1000 mg/kg 投与群で投与 30 日に有意な高値が認められた。その他各被験物質投与群ともに投与期間を通じて対照群と同様な摂餌量を示し、有意差は認められなかった。

交配群雌では、300 mg/kg 投与群で投与 2 日に対照群と比べ有意な低値が認められたが、用量に依存しない変化であった。その他各被験物質投与群ともに妊娠及び授乳期間を通じて対照群と同様な摂餌量を示し、有意差は認められなかった。

非交配群雌では、対照群と比べ投与 15 日に有意な低値、投与 30 日に有意な高値が認められた。

2)　回復期間

1000 mg/kg 投与群の雌雄とも対照群との間に有意差は認められなかった。

7.5　尿検査（摂水量測定を含む）（Table 5-1~5-24、Appendix 5-1~5-30）

1)　投与期間終了週検査

定性項目については、いずれの動物にも異常はみられなかった。

定量項目については、いずれの検査項目においても被験物質投与群と対照群との間に有意差は認められなかった。

2)　回復期間終了週検査

定性項目については、いずれの動物にも異常はみられなかった。

定量項目については、いずれの検査項目においても 1000 mg/kg 投与群と対照群との間に有意差は認められなかった。

7.6　血液学検査（Table 6-1~6-7、Appendix 6-1~6-18）

1)　投与期間終了時検査

雄では、いずれの検査項目においても各被験物質投与群と対照群との間に有意差は認められなかった。

交配群雌では、対照群と比べ 100 mg/kg 投与群で白血球数に有意な高値、100 及び 300 mg/kg 投与群で好塩基球数に有意な高値が認められたが、用量に依存しない変化であった。その他いずれの検査項目においても各被験物質投与群と対照群との間に有意差は認められなかった。

非交配群雌では、1000 mg/kg 投与群で対照群と比べリンパ球比率に有意な高値、好中球比率に有意な低値が認められたが、白血球数に異常はなく、いずれも試験施設の群平均値の背景データ（リンパ球比率：75.4±7.0、好中球比率：20.3±7.2、Mean±2S.D.、13 試験、2011/04-2015/03）に収まる正常範囲内の変動であることから、偶発的な変化と判断した。

2)　回復期間終了時検査

1000 mg/kg 投与群の雄では、対照群と比べ赤血球数に有意な低値が認められたが、5%の軽微な変化であり、投与期間終了時検査には異常がなく、その他の赤血球パラメータに変動はないことから偶発性と判断した。

1000 mg/kg 投与群の雌では、いずれの検査項目においても対照群との間に有意差は認められなかった。

7.7　血液化学検査（Table 7-1~7-7、Appendix 7-1~7-18）

1)　投与期間終了時検査

雄では、対照群と比べ 100 mg/kg 以上の投与群で総胆汁酸に、300 mg/kg 以上の投与群でカリウムにそれぞれ有意な低値が認められた。

交配群雌では、1000 mg/kg 投与群で対照群と比べカルシウムに有意な低値が認められたが、試験施設の群平均値の背景データ（10.1±0.4、Mean±2S.D.、14 試験、2011/04-2015/03）に収まる範囲内の変動であり、低下はわずかで用量依存性も明確でないことから、偶発的な変化と判断した。他に、300 mg/kg 投与群で対照群と比べ塩素に有意な低値が認められたが、用量に依存しない変化であった。

非交配群雌では、1000 mg/kg 投与群でリン脂質に対照群と比べ有意な低値が認められた。

2)　回復期間終了時検査

1000 mg/kg 投与群の雌雄では、カリウムに対照群と比べ有意な低値が認められた。雌については投与終了時には異常はみられず、試験施設の群平均値の背景データ（カリウム：4.3±0.2、Mean±2S.D.、13 試験、2011/04-2015/03）に収まる正常範囲内の変動であることから、偶発的な有意差と判断した。

7.8　器官重量（Table 8-1~8-7、Appendix 8-1~8-34）

1)　投与期間終了時検査

いずれの動物にも被験物質投与に起因すると考えられる変化はみられなかった。

なお、非交配群雌の 1000 mg/kg 投与群で対照群と比べ剖検時体重に有意な低値、脳の相対重量に有意な高値、肝臓の絶対重量に有意な低値が認められたが、いずれも剖検時体重の低値に伴う二次的な変化で毒性学的意義はないと考えられた。

2)　回復期間終了時検査

1000 mg/kg 投与群の雄では、いずれの器官重量にも対照群との間に有意差は認められなかった。

1000 mg/kg 投与群の雌では、心臓及び脾臓の絶対重量に対照群と比べ有意な高値が認められたが、絶対重量のみの変化であり投与終了時検査には異常はないことから偶発性と判断した。

7.9　剖検所見（Table 9-1~9-7、Appendix 9-1~9-116）

1)　投与期間終了時検査

いずれの動物にも被験物質投与に起因すると考えられる変化はみられなかった。

なお、その発現状況から被験物質投与との関連がないと考えられる変化が以下のようにみられた。

雄において腺胃の暗赤色巣が対照群、100、300 及び 1000 mg/kg 投与群で各 1/7 例、1/12 例、2/12 例及び 1/7 例にみられた。また、肝臓の暗赤色巣が対照群の 1 例に、下垂体ののう胞が 100 mg/kg 投与群の 1 例にみられた。

非交配群雌において腺胃の暗赤色巣が対照群で 3/5 例、1000 mg/kg 投与群で 1/5 例にみられた。

交配群雌において腺胃の暗赤色巣が対照群で 2/11 例、100mg/kg 投与群で 1/11 例、300 mg/kg 投与群で、1/12 例にみられた。

一方、授乳期間中に全哺育児が死亡した 1000 mg/kg 投与群の 1 例（動物番号 4109）、妊娠 25 日未分娩であった対照群及び 1000 mg/kg 投与群の各 1 例（動物番号 1109 及び 4104）、交尾不成立であった 100 mg/kg の 1 例（動物番号 2101）では肉眼的異常はみられなかった。

2)　回復期間終了時検査

腺胃の暗赤色巣が 1000 mg/kg 投与群の雌 1/5 例にみられたが、投与終了時剖検群と同様に、その発現状況から被験物質投与との関連がない変化と考えられた。

その他、妊娠 25 日未分娩動物の交配相手の対照群の雄 1 例（動物番号 1009）に精巣の小型化（軽度、左右）がみられた。

7.10　病理組織学検査（Table 10-1~10-18、Appendix 9-1~9-116）

1)　投与期間終了時検査

いずれの器官/組織においても被験物質投与に起因すると考えられる変化はみられなかった。

なお、いくつかの器官/組織に組織学的変化がみられたが、その発現状況あるいは病理学的性状から被験物質投与と関係しない偶発性変化と判断した。

2)　妊娠 25 日未分娩、交尾不成立、全哺育児死亡母動物

不妊動物（妊娠 25 日未分娩動物）が、1000 mg/kg 投与群で 1 例（動物番号 4104）みられ、同例では偽妊娠の特徴を示唆する形態的変化（卵巣の黄体肥大及び乳腺の小葉過形成）がみられたものの、同例及び交配相手（動物番号 4004）には不妊の原因を示唆する組織学的変化はみられなかった。なお、対照群においても不妊動物（妊娠 25 日未分娩動物）が 1 例（動物番号 1109）みられたが、交配相手（動物番号 1009）でみられた雄性生殖器の異常〔精巣の精細管萎縮（高度）、ライディッヒ細胞過形成（軽微）及び精巣上体の精子減少（高度）〕が不妊の原因と考えられた。

交尾不成立動物が、100 mg/kg 投与群で 1 組（動物番号 2001 及び 2101）みられたが、両例には著変はみられず、交尾不成立の原因を示唆する組織学的変化はみられな

かった。

更に、全哺育児死亡母動物が、1000 mg/kg 投与群で 1 例（動物番号 4109）みられたが、同例では胸腺の萎縮（軽微）がみられたのみで、哺育児死亡の原因を示唆する組織学的変化はみられなかった。

7.11　性周期（Table 11、Appendix 10-1~10-8）

300 mg/kg 投与群で 1 例に性周期異常がみられたが、性周期異常率、発情期像発現回数及び性周期（発情周期）には対照群と各被験物質投与群との間に有意差は認められなかった。

7.12　交配成績（Table 12-1 及び 12-2、Appendix 11-1~11-8）

交尾不成立であった 100 mg/kg の 1 例（動物番号 2101）を除き、交配 6 日までに全例の交尾が成立し、交尾までに要した日数、交尾率、授精率及び受胎率には対照群と各被験物質投与群との間に有意差は認められなかった。

7.13　分娩成績（Table 13、14-1、Appendix 12-1~12-4、13-1~13-4）並びに分娩及び哺育状態（Table 1-5 及び 1-6、Appendix 1-17~1-24）

妊娠期間、出産率、黄体数、着床痕数、着床前死亡率、着床率、分娩率、出生率、出産児数、出生児数及び生後 0 日の性比（出産児あるいは出生児）並びに外表異常率には対照群と各被験物質投与群との間に有意差は認められなかった。

妊娠動物の分娩状態では妊娠 21 から 23 日に全例が分娩し、胎盤及び羊膜の処理は正常に行われた。哺育状態では、いずれの母動物にも児集め、営巣及び授乳行動に異常はみられなかった。

7.14　出生児の生存性及び性比（Table 15、Appendix 14-1~14-4）

生後 4 日の生存率及び性比には対照群と各被験物質投与群との間に有意差は認められなかった。

7.15　出生児の体重（Table 16-1 及び 16-2、Appendix 15-1~15-8）

生後 0 及び 4 日の雌雄体重並びに生後 0~4 日の間の体重増加量には対照群と各被験物質投与群との間に有意差は認められなかった。

7.16　死亡児の肉眼観察所見（Table 17、Appendix 16-1~16-4）

いずれの死亡児にも肉眼的異常はみられなかった。

7.17　出生児の生後 4 日肉眼観察所見（Table 14-2、Appendix 13-5~13-8）

いずれの出生児にも肉眼的異常はみられなかった。

8. 考察

2,5,8,11,14,17-hexaoxanonadecan-19-ol の 0（対照群：コーン油）、100、300 及び 1000 mg/kg を Sprague-Dawley 系 SPF ラットの雄には交配前 14 日間に加え交配期間を通して剖検前日まで（42 日間）、雌には交配前 14 日間に加え交配期間及び妊娠期間を通して授乳 4 日まで（41~47 日間）、非交配群雌には 42 日間強制経口投与し、反復投与毒性及び生殖発生毒性を検討した。更に、0 及び 1000 mg/kg 群の一部の動物については、雌雄ともに 42 日間投与した後 14 日間の回復期間を設け、毒性変化の可逆性を検討した。

8.1 反復投与毒性

いずれの投与群においても死亡動物はみられず、一般状態、詳細な一般状態、機能検査、握力、自発運動量、体重、尿検査（摂水量を含む）、血液学検査、器官重量、剖検及び病理組織学検査には被験物質投与の影響は認められなかった。

摂餌量では、雄の 300 及び 1000 mg/kg 群で投与 30 日に高値が、非交配群雌の 1000 mg/kg 群で投与 15 日に低値、投与 30 日に高値が認められたが、いずれも一過性の変動で体重及び総摂餌量に異常はみられないことから、毒性学的意義はないと判断した。

血液化学検査では、雄の 100 mg/kg 以上の群で総胆汁酸の低値が認められ、被験物質投与による影響と考えられた。しかし、本変化は回復終了時にはみられず可逆性の変化であること、肝臓に病理組織学的な異常はみられないことから、毒性学的意義はないと判断した。雄の 300 mg/kg 以上の群でカリウムの低値が認められ、被験物質投与による影響と考えられた。しかし、いずれも試験施設の群平均値の背景データ（4.5±0.2、Mean±2S.D.、14 試験、2011/04-2015/03）に収まる範囲内の変動であり、低下はわずかで用量依存性も明確でなく、腎臓及び甲状腺に病理組織学的な異常はみられず、尿中の電解質にも異常はないことから、毒性学的意義はないと考えられた。カリウムの低値は回復終了時にも雄の 1000 mg/kg 群でみられ、回復性は認められなかった。しかし、試験施設の群平均値の背景データ（雄：4.5±0.2、Mean±2S.D.、14 試験、2011/04-2015/03）に収まる範囲内の変動であり、低下はわずかであることから、毒性学的意義はないと考えられた。非交配群雌では、1000 mg/kg 群でリン脂質の低値が認められたが、回復終了時にはみられず、可逆性の変化であった。

8.2 生殖発生毒性

1000 mg/kg 群の 1 例で授乳 1 日に全哺育児が死亡した。本例では、妊娠期間の延長傾向と死産児数の増加を伴った出生児数の低下がみられており、出生児の生存性が低下していたことが考えられた。しかし、当該雌動物にはそれら原因を示す組織学的異常はみられず、同群の他個体に同様の変化はみられないため、被験物質投与と関連しない、本例特異的な要因による変化と判断した。被験物質投与群では不妊動物が

1000 mg/kg 群で 1 例、交尾不成立雌雄動物が 100 mg/kg 群で 1 組みられたが、当該雌動物及びその交配相手にはそれらの原因を示す組織学的異常はみられず、かつ 1 例また 1 組ずつの低頻度であったことを考慮すると、いずれも被験物質との関連はないと考えられた。その他にはいずれの群においても生殖機能に関するパラメータに被験物質投与の影響は認められないことから、1000 mg/kg 群においても雌雄動物の交尾能、授精能及び受胎能、母動物の妊娠維持及び分娩などへの影響はないと判断した。

1000 mg/kg 群においても、出生児のいずれの検査項目にも被験物質投与による影響は認められないことから、児の子宮内発生、発育及び分化並びに生存性などへの影響はないと判断した。

これらの結果から、本試験条件下で 2,5,8,11,14,17-hexaoxanonadecan-19-ol を反復経口投与することにより、被験物質に起因すると考えられる主な毒性変化として非交配群雌の 1000 mg/kg 群でリン脂質の低値がみられた。したがって、本被験物質の反復投与毒性に対する雄での無影響量は 100 mg/kg 未満、無毒性量は 1000 mg/kg であり、雌ではいずれも 300 mg/kg と判断した。生殖発生毒性に対する無影響量及び無毒性量は雄親動物、母動物及び児動物でいずれも 1000 mg/kg と判断した。

9. 文献

[1] [redacted]：2,5,8,11,14,17-hexaoxanonadecan-19-ol の IR を用いた特性試験及び安定性試験並びに GC を用いた被験液（媒体：コーン油）中濃度測定法バリデーション及び安定性・均一性試験（株式会社ボゾリサーチセンター 御殿場研究所、試験番号：A-2764、2015 年）

[2] [redacted]：2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた 14 日間反復経口投与毒性試験（投与量設定試験）（株式会社ボゾリサーチセンター、試験番号：N-R050、2015 年）

[3] Snedecor GW, Cochran WG. Statistical methods. 8th ed. Ames: Iowa State University Press; 1989.

[4] Dunnett, CW. New tables for multiple comparisons with a control. Biometrics 1964; 20: 482-91.

[5] Steel RGD. A multiple comparison rank sum test: Treatments versus control. Biometrics 1959; 15: 560-72.

[6] Siegel S, Castellan NJ. Jr. Nonparametric statistics for the behavioral sciences. 2nd ed. New York: McGraw-Hill; 1988.

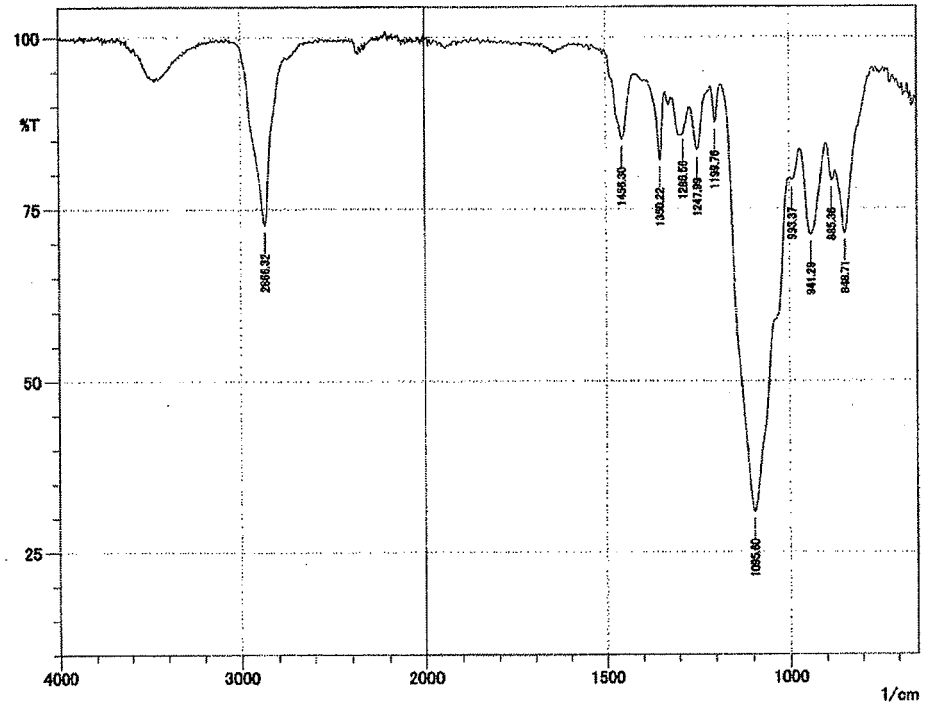
[7] 佐久間昭（1981）：薬効評価－計画と分析–II, pp.23-27, 387-389, 東京大学出版会, 東京.

試験番号：A-2782

試験成績書
（2,5,8,11,14,17-hexaoxanonadecan-19-ol の特性）

ステージ	:	初期値
測定日	:	2015 年 9 月 3 日
被験物質	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol （ロット番号：YN4XC）
測定項目	:	赤外吸収スペクトル［全反射測定法（ATR 法）］

結果　：　特性のスペクトルを以下に示す。



基準　：　「新規化学物質等に係る試験を実施する試験施設に関する基準」（平成 23 年 3 月 31 日：薬食発 0331 第 8 号、平成 23･03･29 製局第 6 号、環保企発第 110331010 号）

[redacted]　2015 年 9 月 8 日

[redacted]

試験責任者
株式会社ボゾリサーチセンター　御殿場研究所

試験番号：R-1168

試験成績書
（被験物質の安定性）

ステージ	：	投与期間終了後
測定日	：	2015年11月20日 2015年 9月 3日 （特性のスペクトル）
被験物質	：	2,5,8,11,14,17-hexaoxanonadecan-19-ol （ロット番号：YN4XC）
測定項目	：	赤外吸収スペクトル｛全反射測定法（ATR法）｝
判定基準	：	安定性のスペクトルを特性のスペクトル[1)]と比較するとき、同一波長のところに同様の強度の吸収を認める。 1) [redacted]：2,5,8,11,14,17-hexaoxanonadecan-19-olの特性試験（株式会社ボゾリサーチセンター 御殿場研究所、試験番号：A-2782）
結果	：	安定性のスペクトルを特性のスペクトルと比較したとき、同一波長のところに同様の強度の吸収を認めた。赤外吸収スペクトルは次のページに示す。
判定	：	適
基準	：	「新規化学物質等に係る試験を実施する試験施設に関する基準」（平成23年3月31日：薬食発0331第8号、平成23･03･29製局第6号、環保企発第110331010号）

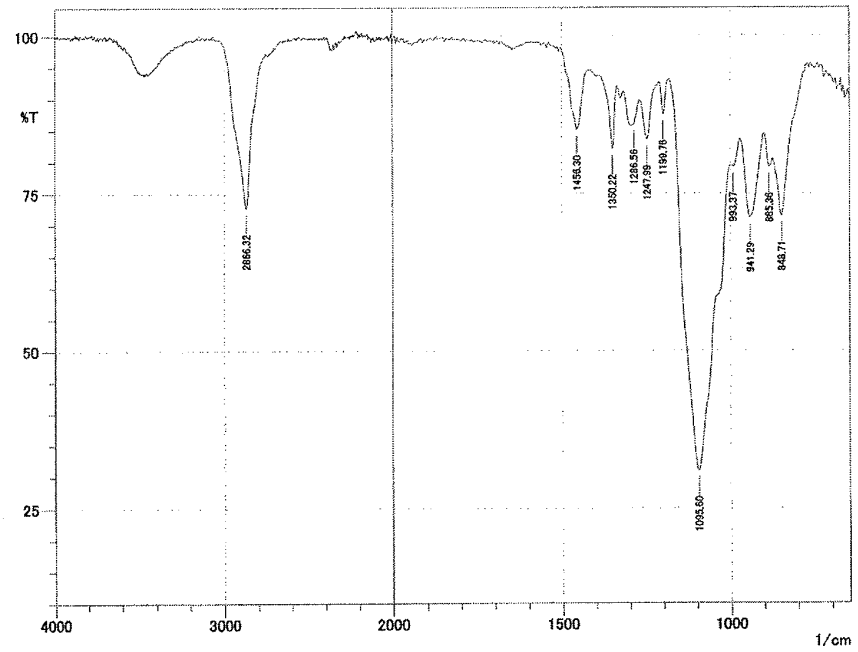
[redacted] 2015 年 12 月 7 日

[redacted]
化学分析責任者
株式会社ボゾリサーチセンター 御殿場研究所

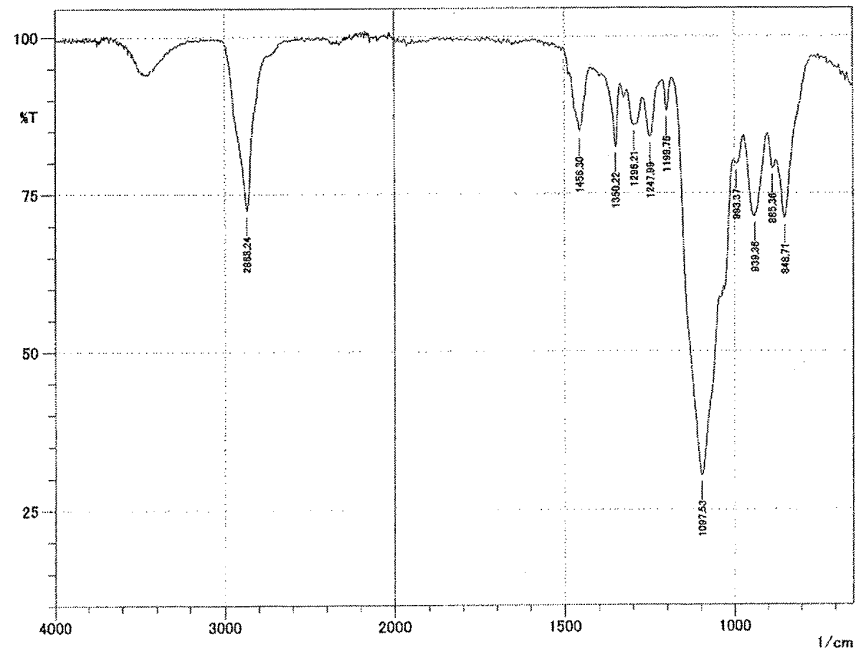
試験番号：R-1168

結果　　：　赤外吸収スペクトル

（特性のスペクトル）



（安定性のスペクトル）



試験番号：A-2764

試験成績書
（被験液中 2,5,8,11,14,17-hexaoxanonadecan-19-ol の安定性・均一性）

被験物質	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol （ロット番号：YN4XC）
媒体	:	コーン油
形態	:	懸濁液
測定対象物質	:	2,5,8,11,14,17-hexaoxanonadecan-19-ol
保存条件	:	褐色ガラス瓶に入れ、冷所（冷蔵庫内、許容値：1~10°C）及び室温にて保存
保存期間	:	冷所で 8 日間保存した後、室温で 24 時間保存
評価基準		
安定性	:	残存率｛調製日の測定濃度の平均値（100）に対する保存後の測定濃度の平均値の割合｝が 100.0±10.0%以内。
均一性	:	変動係数が 10.0%以下。
結果	:	次ページに記載
判定	:	適
基準	:	「新規化学物質等に係る試験を実施する試験施設に関する基準」（平成 23 年 3 月 31 日：薬食発 0331 第 8 号、平成 23・03・29 製局第 6 号、環保企発第 110331010 号）

[redacted] 2015 年 8 月 25 日

[redacted]
試験責任者
株式会社ボゾリサーチセンター　御殿場研究所

試験番号：A-2764

試験成績書
（被験液中 2,5,8,11,14,17-hexaoxanonadecan-19-ol の安定性・均一性）

結果：

調製濃度 (mg/mL)	採取層		測定濃度 (mg/mL) 調製日	測定濃度 (mg/mL) 保存後
10.0	上層		9.84	9.47
	中層		9.62	9.58
	下層		9.65	9.74
		平均値	9.70	9.60
		標準偏差	0.12	0.14
		残存率（%）	100	99.0
		変動係数（%）	1.2	1.5
200	上層		203	205
	中層		207	198
	下層		205	185
		平均値	205	196
		標準偏差	2	10
		残存率（%）	100	95.6
		変動係数（%）	1.0	5.1

分析結果

試験番号　：　R-1168
測定項目　：　濃度・均一性
ステージ　：　初回投与
測定開始日　：　2015 年 9 月 17 日

測定試料
　被験物質　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol
　　（ロット番号；YN4XC）
　形態　：　懸濁液
　媒体　：　コーン油
　調製日　：　2015 年 9 月 17 日

測定対象物質　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol

評価基準
　濃度　：　表示値に対する割合；100.0±10.0%
　均一性　：　変動係数（CV）；10.0%以下

結果　：

表示値 (mg/mL)	採取層	測定濃度 (mg/mL)	平均値±標準偏差	表示値に対する割合 (%)	CV (%)
20	上層 中層 下層	20.3 20.7 20.4	20.5±0.2	102.5	1.0
60	上層 中層 下層	62.9 64.0 65.5	64.1±1.3	106.8	2.0
200	上層 中層 下層	217 209 203	210±7	105.0	3.3

判定　：　適

分析結果

試験番号　：　R-1168
測定項目　：　濃度・均一性
ステージ　：　投与 6 週
測定開始日　：　2015 年 10 月 21 日

測定試料
　被験物質　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol
　　（ロット番号；YN4XC）
　形態　：　懸濁液
　媒体　：　コーン油
　調製日　：　2015 年 10 月 21 日

測定対象物質　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol

評価基準
　濃度　：　表示値に対する割合；100.0±10.0%
　均一性　：　変動係数（CV）；10.0%以下

結果　：

表示値 (mg/mL)	採取層	測定濃度 (mg/mL)	平均値±標準偏差	表示値に対する割合 (%)	CV (%)
20	上層 中層 下層	20.5 20.4 20.4	20.4±0.1	102.0	0.5
60	上層 中層 下層	61.2 61.4 62.1	61.6±0.5	102.7	0.8
200	上層 中層 下層	212 207 209	209±3	104.5	1.4

判定　：　適

2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた 14 日間反復経口投与毒性試験（投与量設定試験）における所見

試験番号：N-R050

被験物質		媒体 a)	2,5,8,11,14,17-hexaoxanonadecan-19-ol		
投与量(mg/kg)		0	250	500	1000
投与容量 (mL/kg)		5	5	5	5
使用動物数 (♂/♀)		5/5	5/5	5/5	5/5
死亡動物数 (♂/♀)		0/0	0/0	0/0	0/0
死亡発現時期		–	–	–	–
一般状態	生存	–	–	–	–
	死亡	/	/	/	/
体重		/	–	–	–
体重増加量		/	–	–	–
摂餌量		/	–	–	–
血液学検査		/	–	–	–
血液化学検査		/	–	–	ALP：↑(♀) 総たん白質：↓(♀)
器官重量	絶対	/	–	精巣：↑	精巣：↑
	相対	/	–	精巣：↑	精巣：高値傾向
剖検	生存	–	–	–	–
	死亡	/	/	/	/

a) ：コーン油
– ：著変なし
/ ：データなし又は判別不明あるいは検定不能
↑又は↓；$p<0.05$，↑↑又は↓↓；$p<0.01$，(対照群との間に有意差あり)

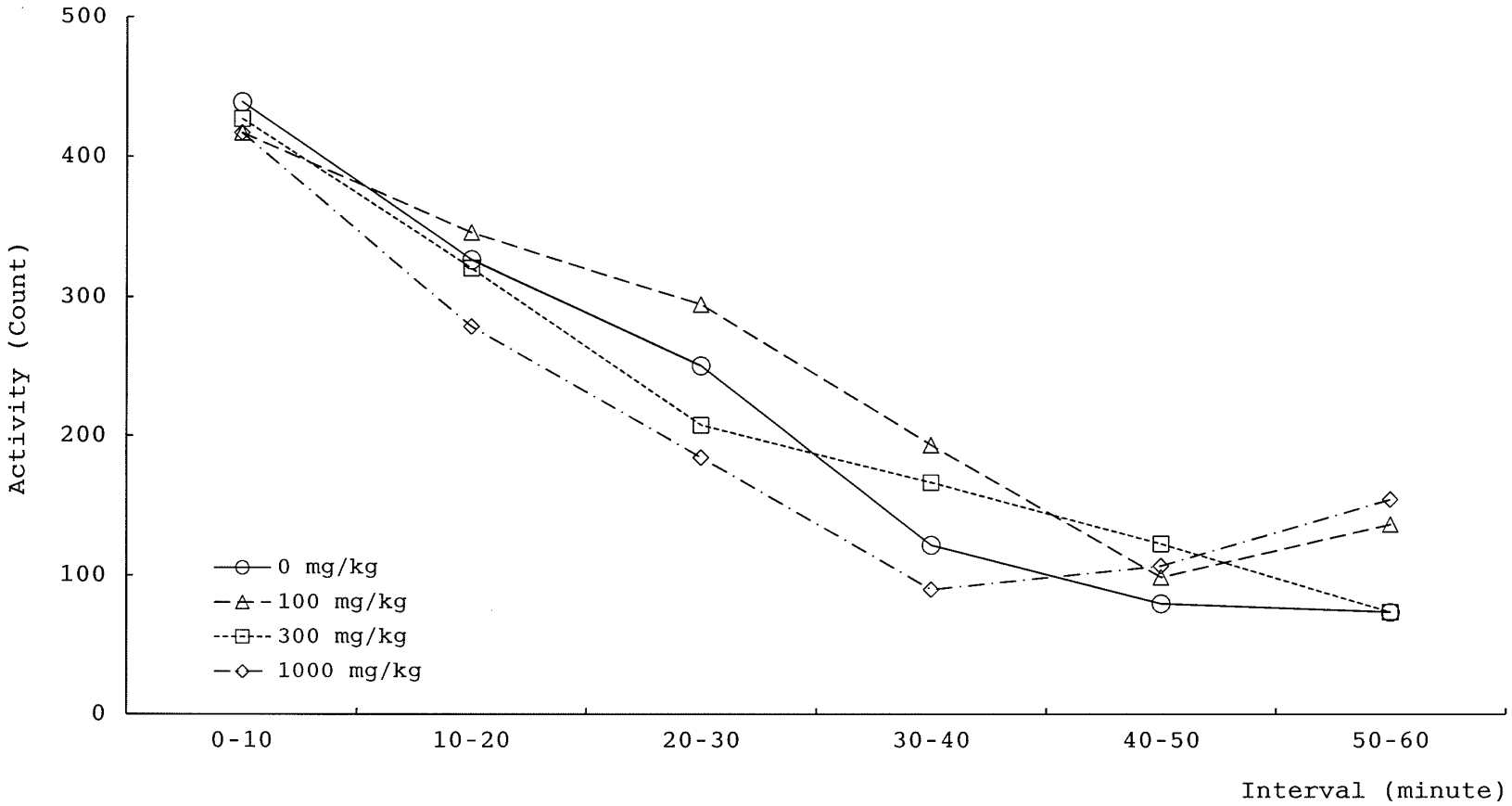


Fig.1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity of male rats (Week 6 of administration)

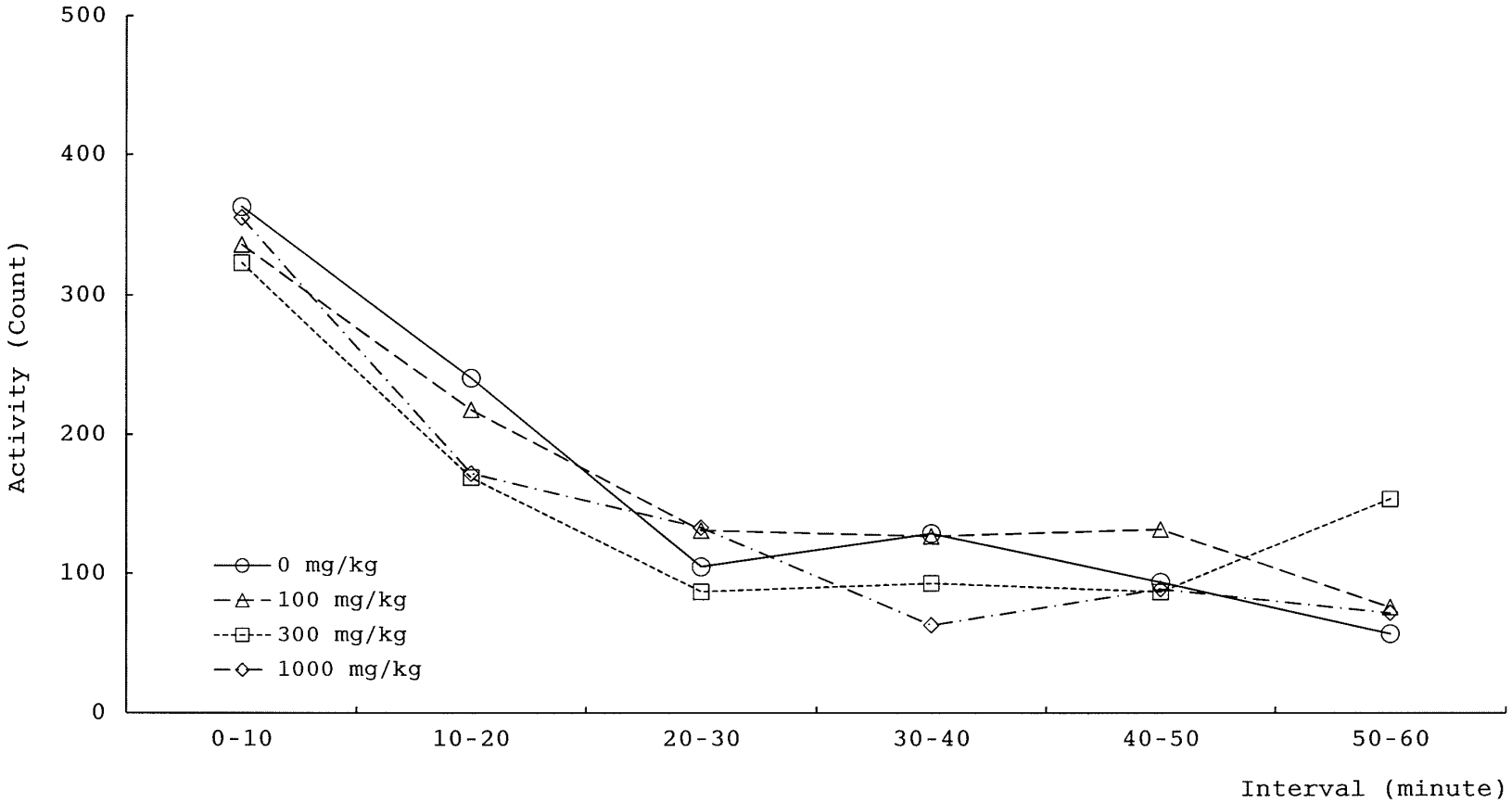


Fig.2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity of female rats (Lactation day 4)

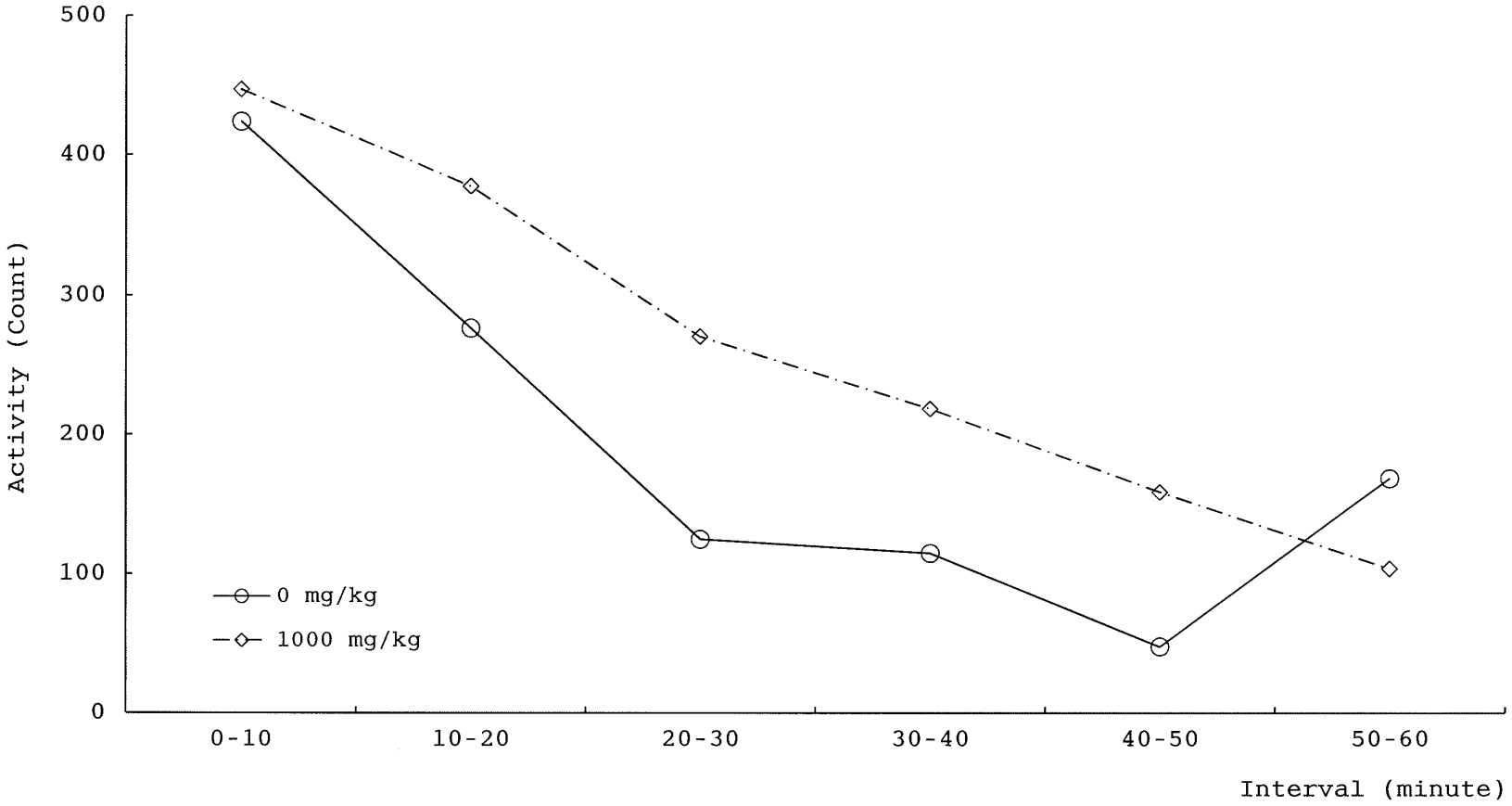


Fig.3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity of female rats (Week 6 of administration)

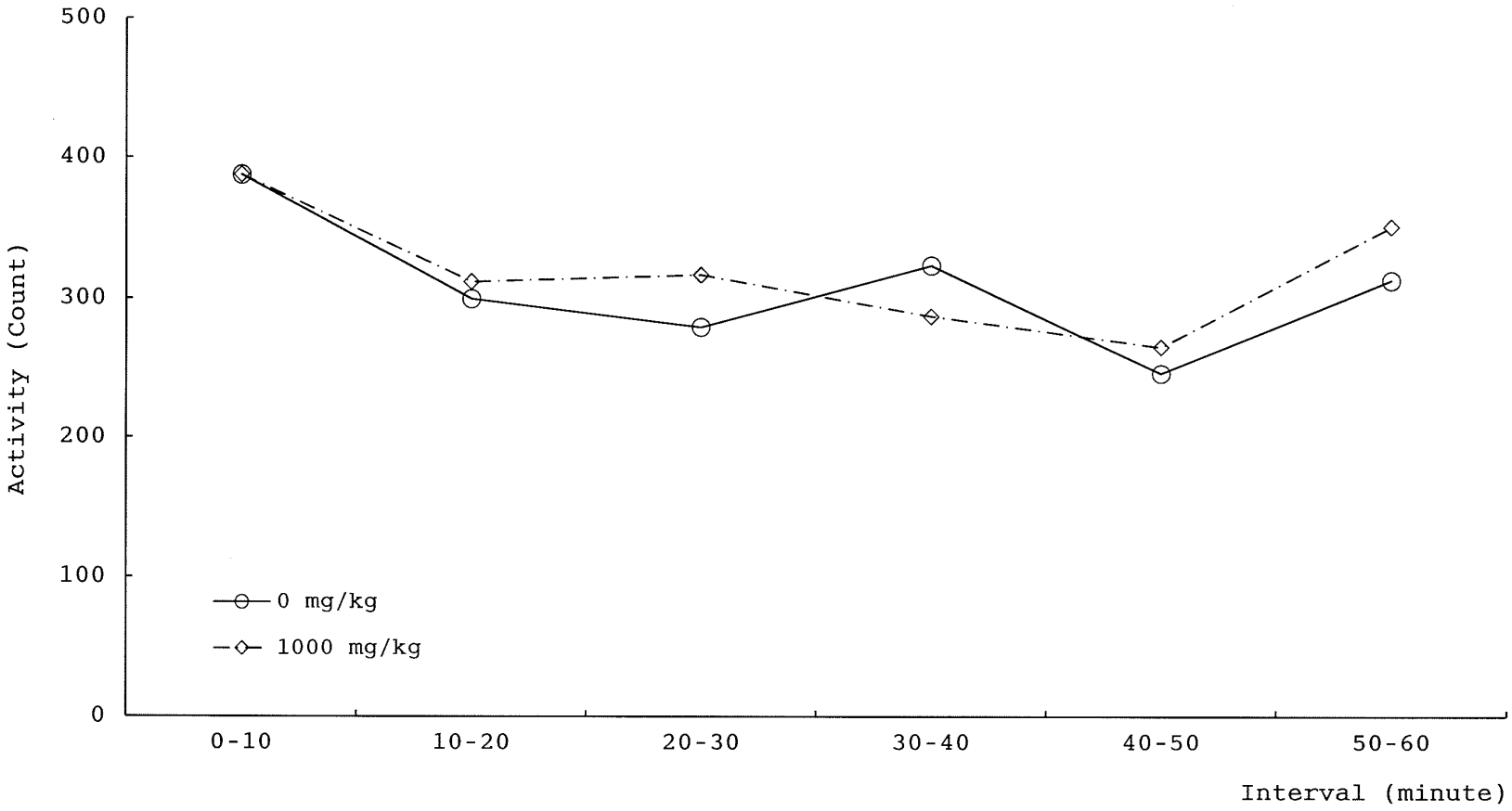


Fig.4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity of male rats (Week 2 of recovery)

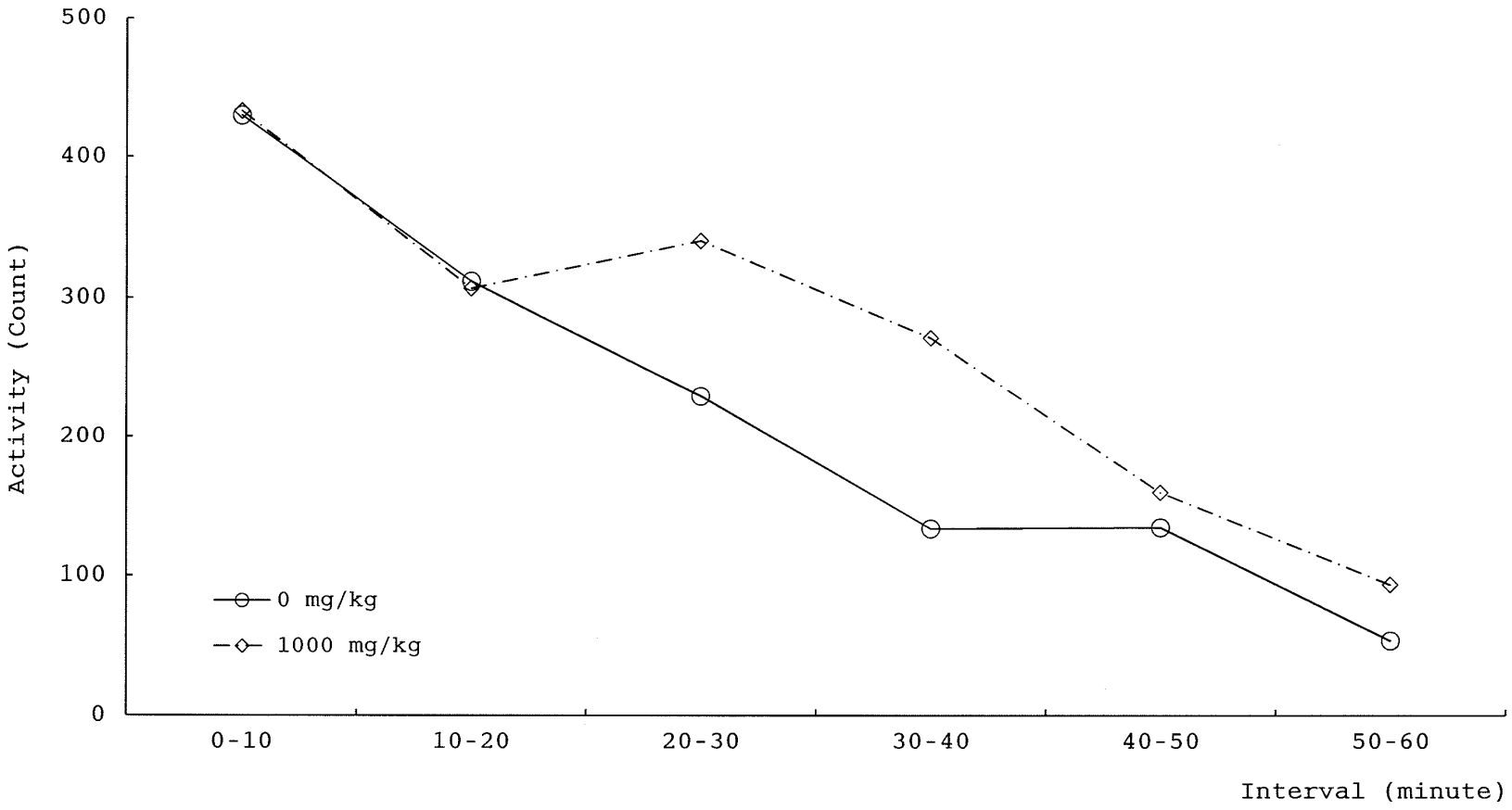


Fig.5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity of female rats (Week 2 of recovery)

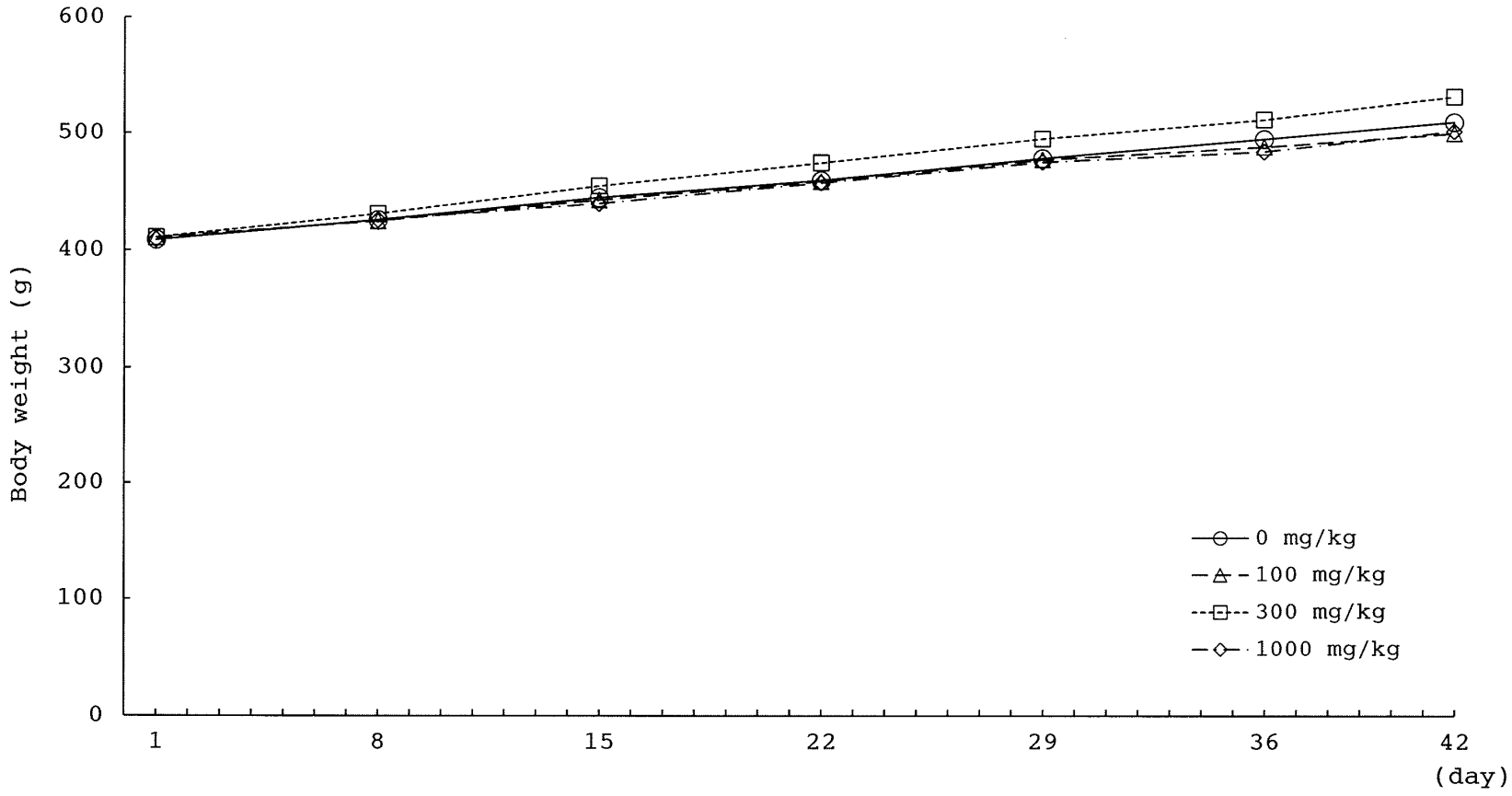


Fig.6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of male rats (F0 before mating Day 1-15, F0mating Day 15-43)

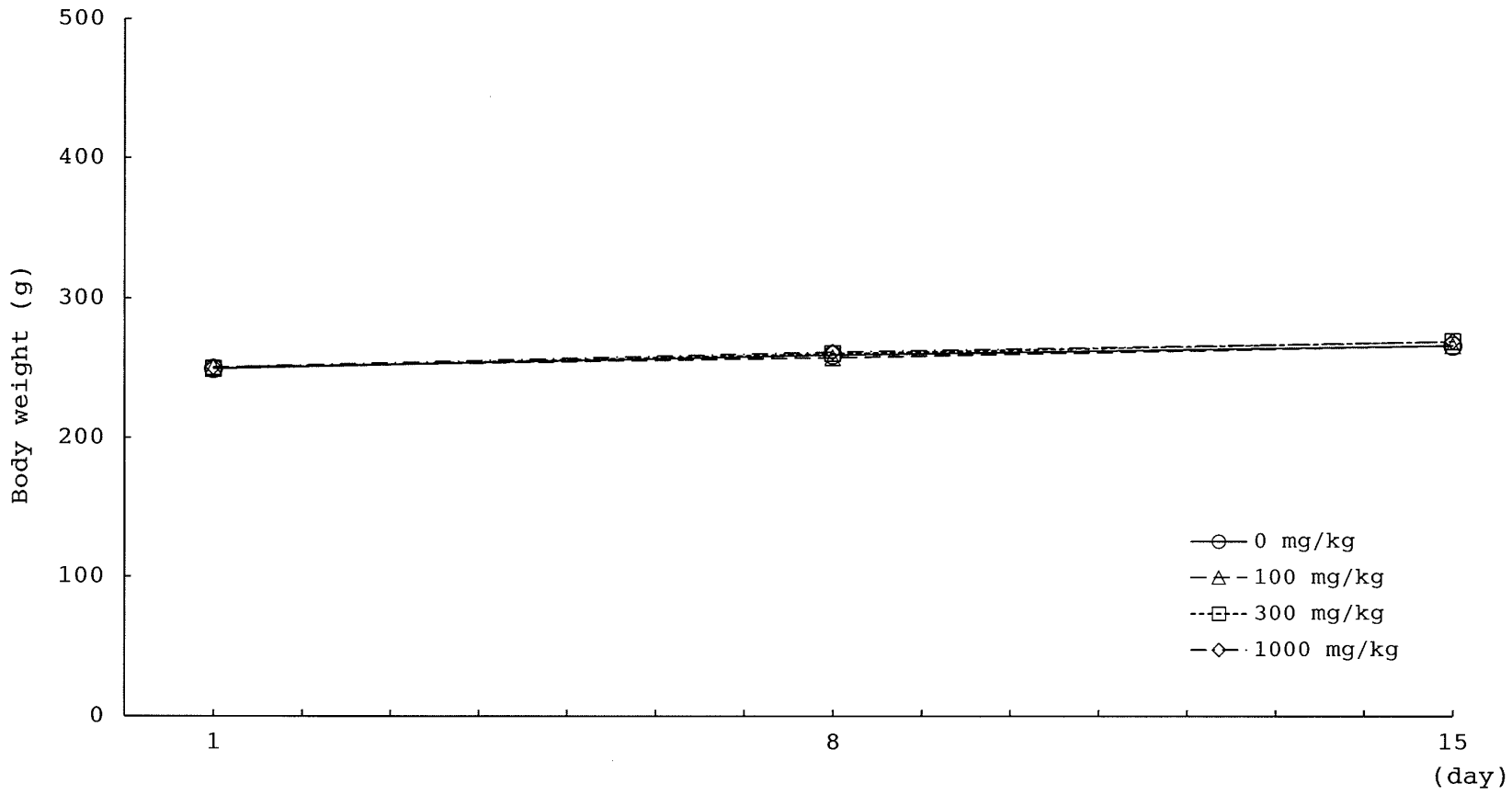


Fig.7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of female rats (F0 before mating Day 1-15)

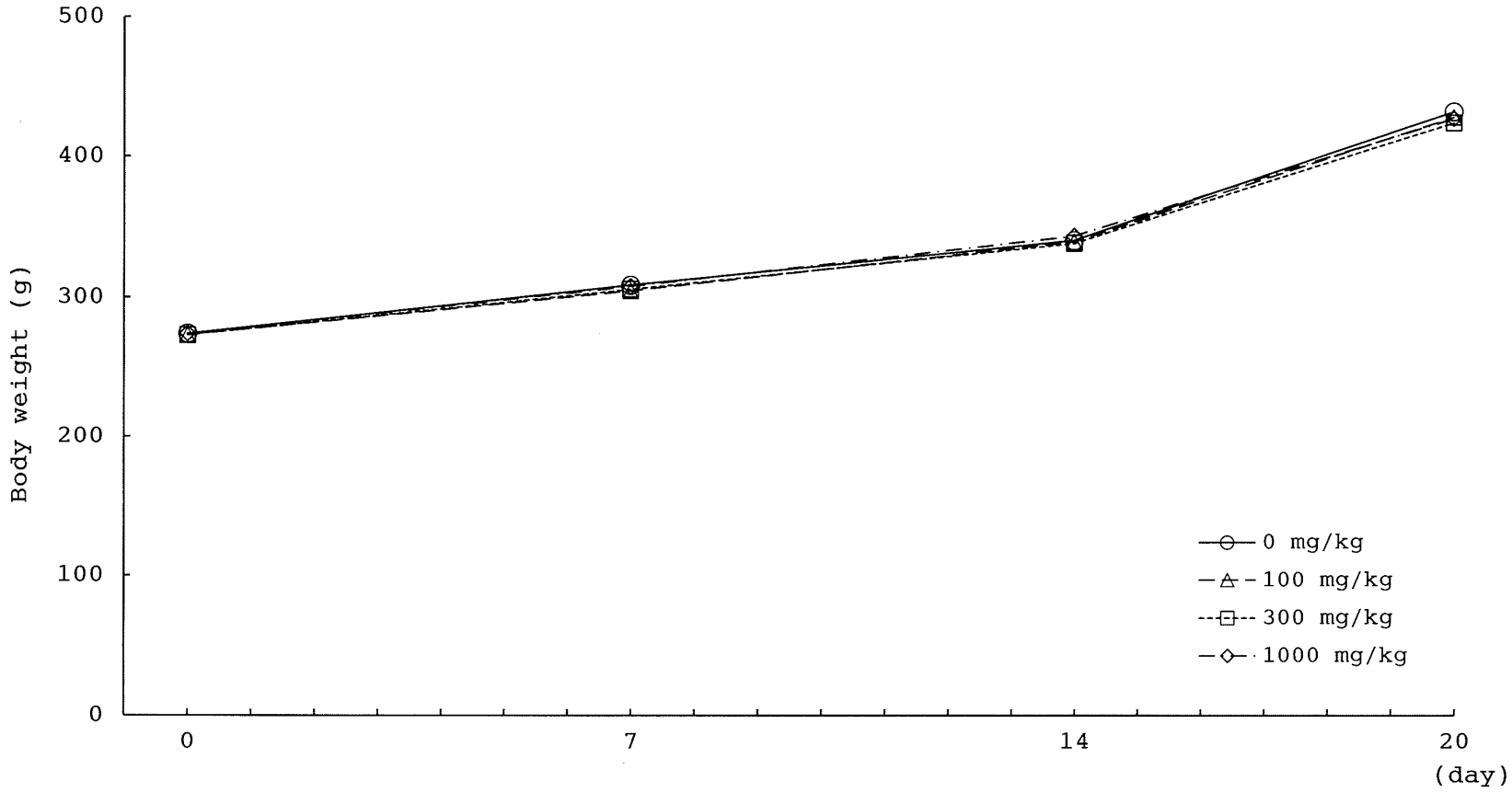


Fig.8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of dams (F0 gestation Day 0-25)

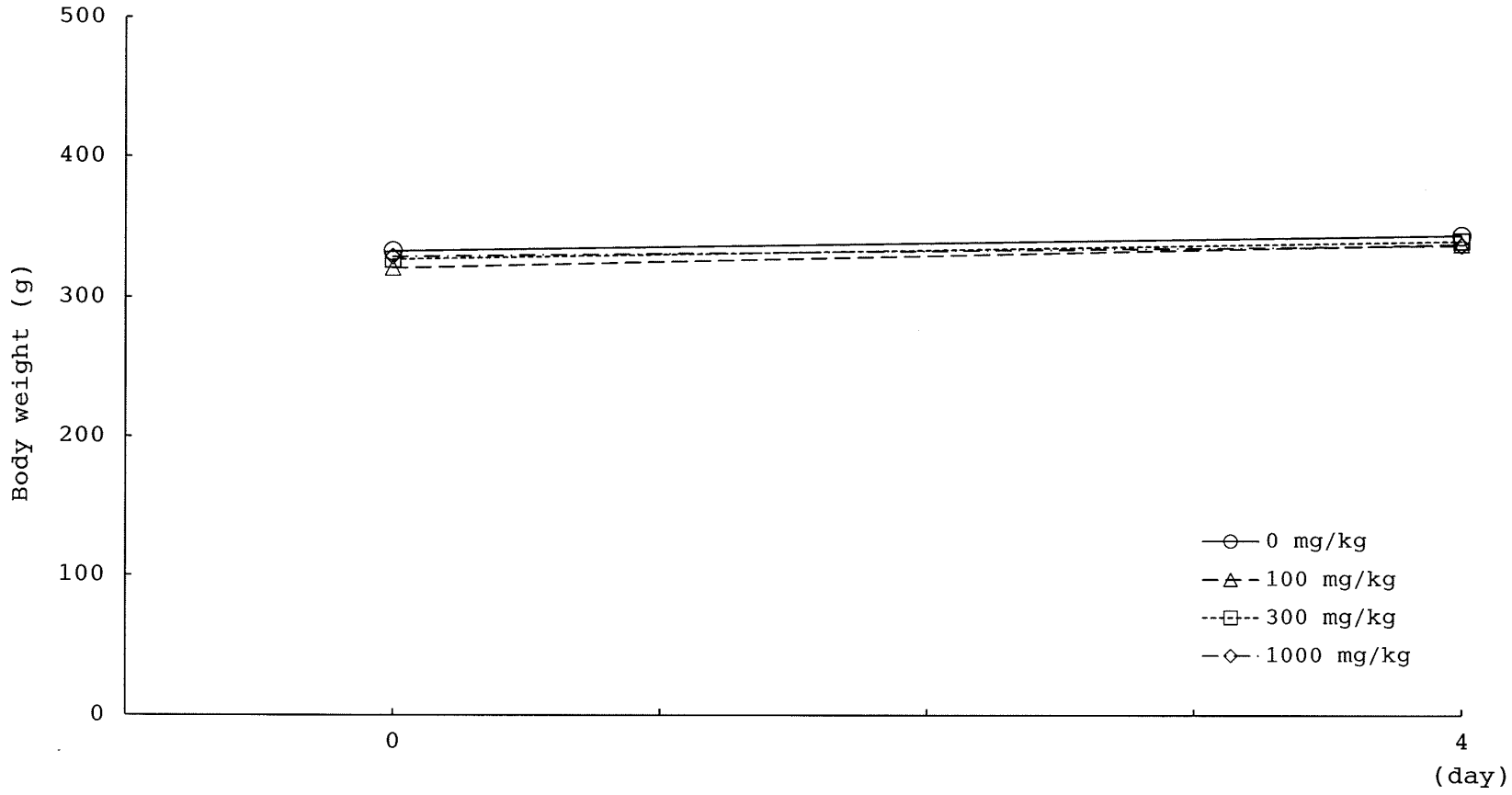


Fig.9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of dams (F0 lactation Day 0-5)

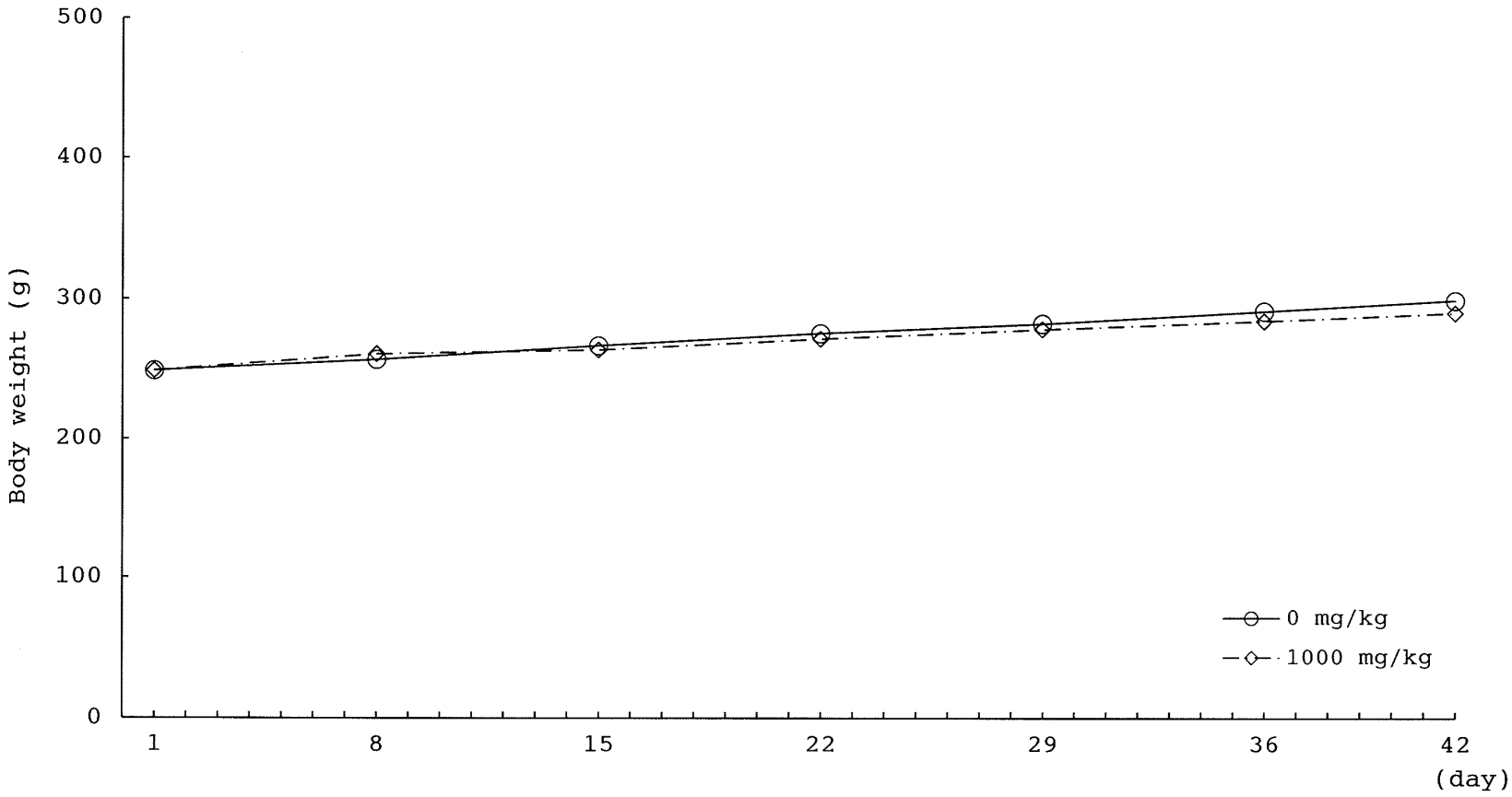


Fig.10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of female rats (Administration period)

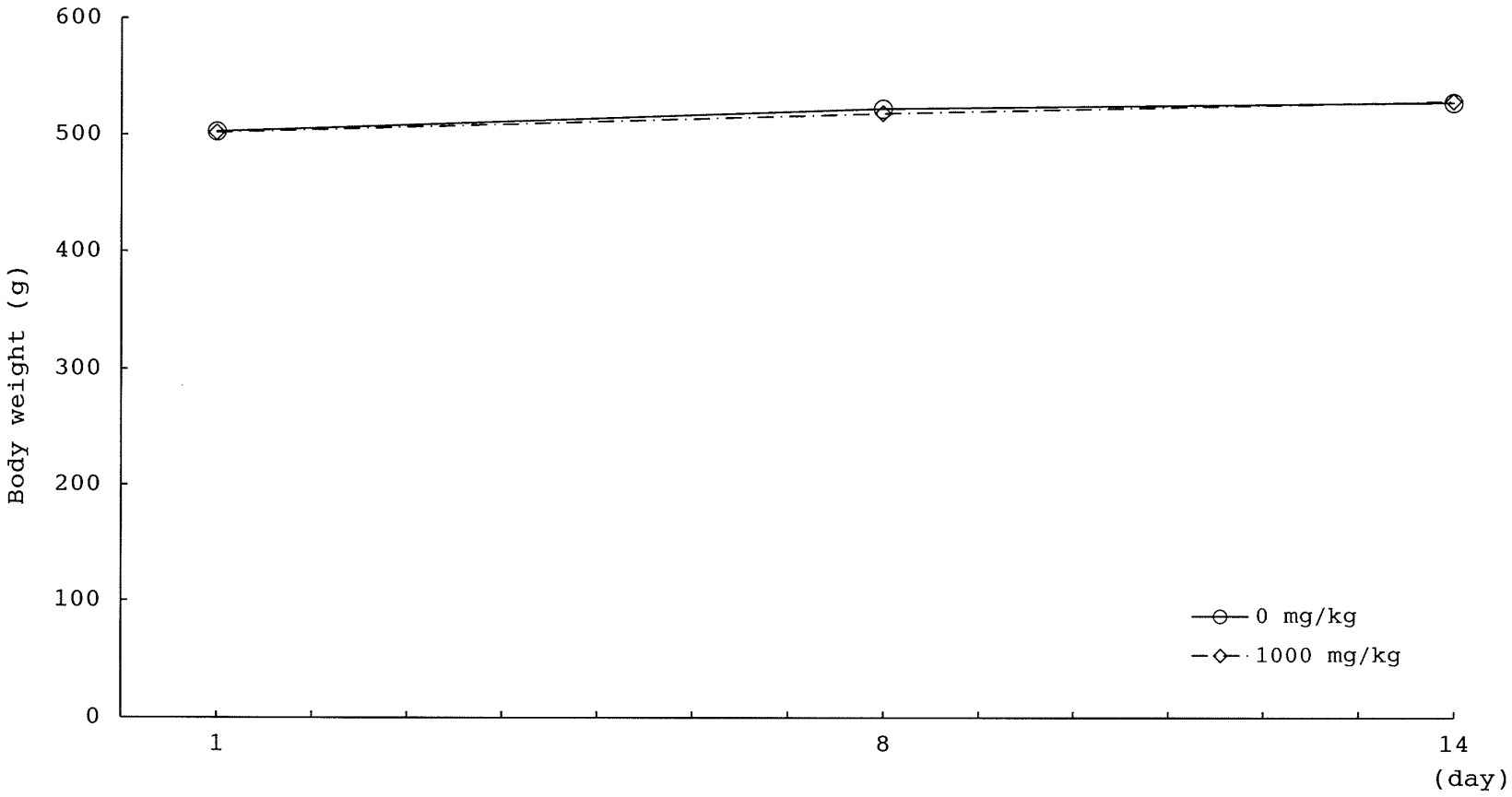


Fig.11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of male rats (Recovery period)

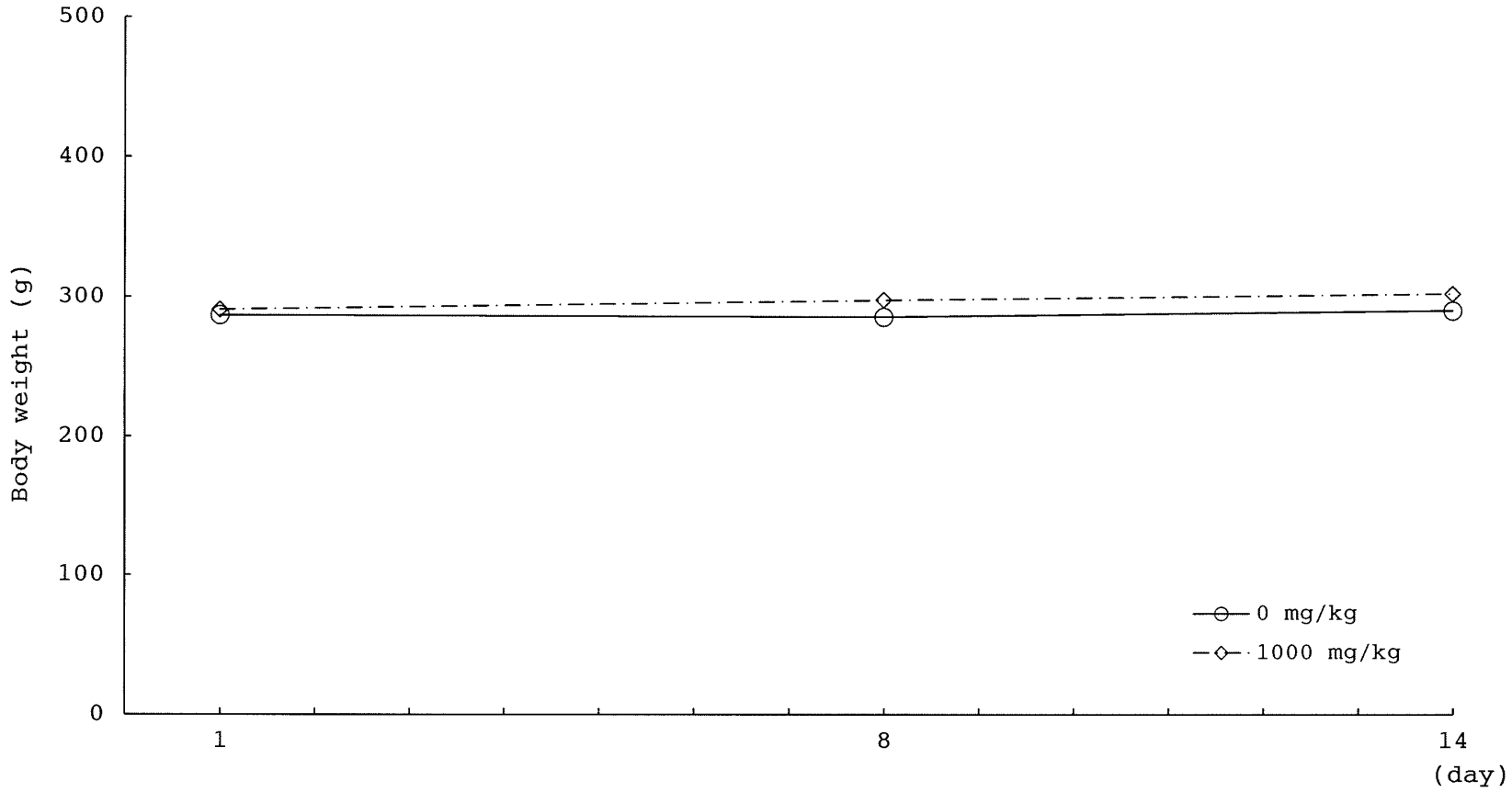


Fig.12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Body weight of female rats (Recovery period)

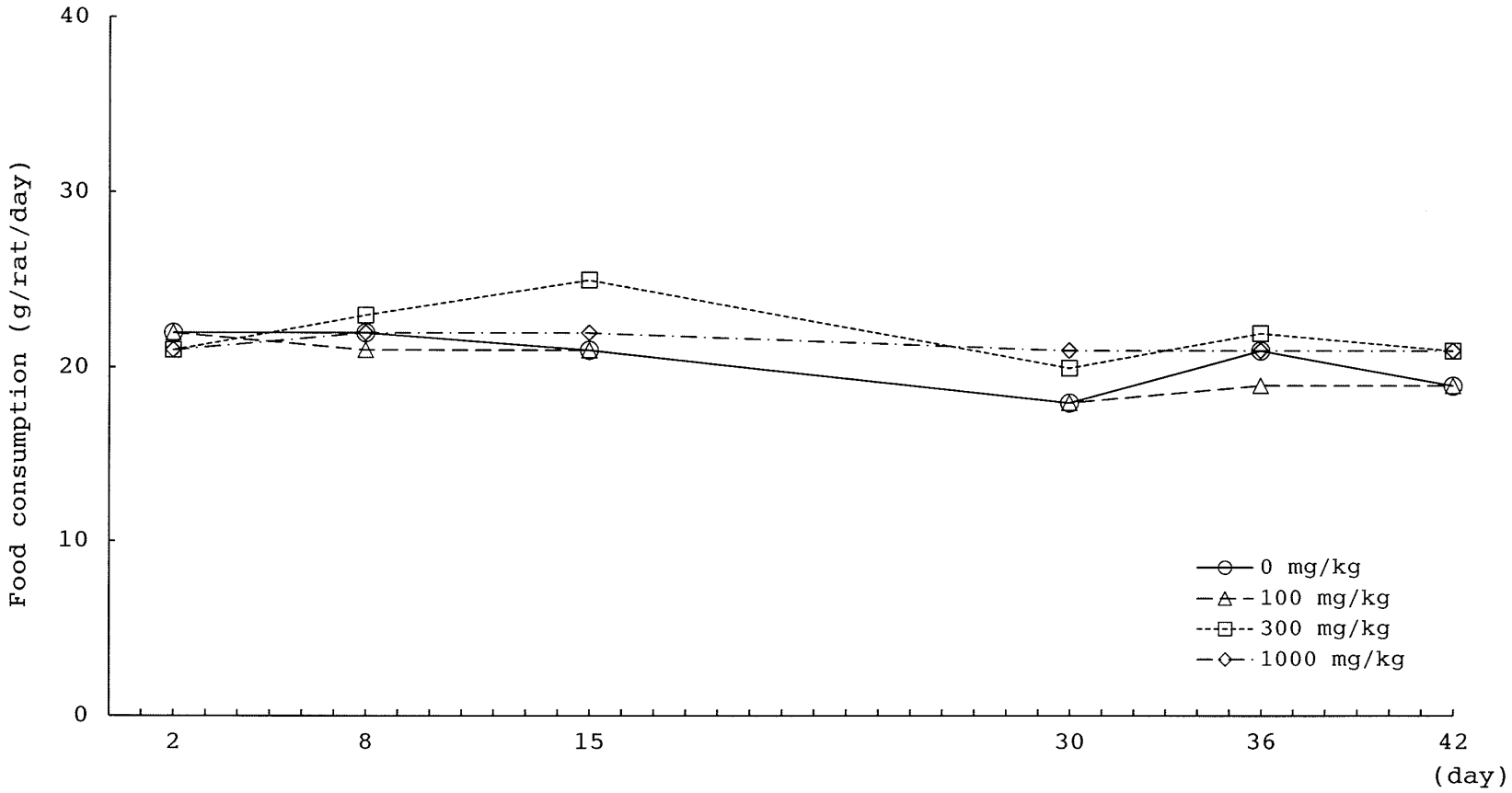


Fig.13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of male rats (F0 before mating Day 1-15, F0mating Day 15-43)

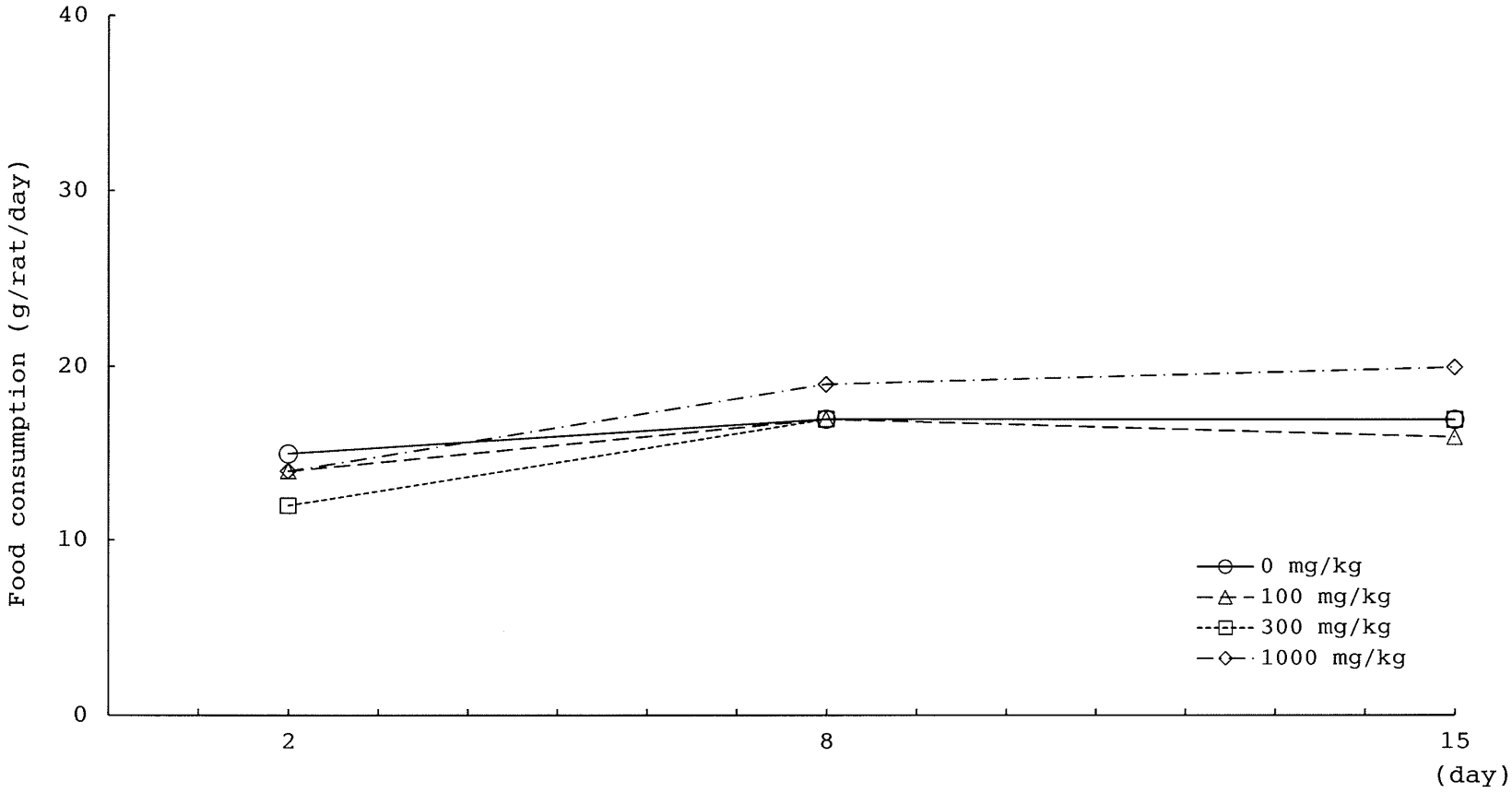


Fig.14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of female rats (F0 before mating Day 1-15)

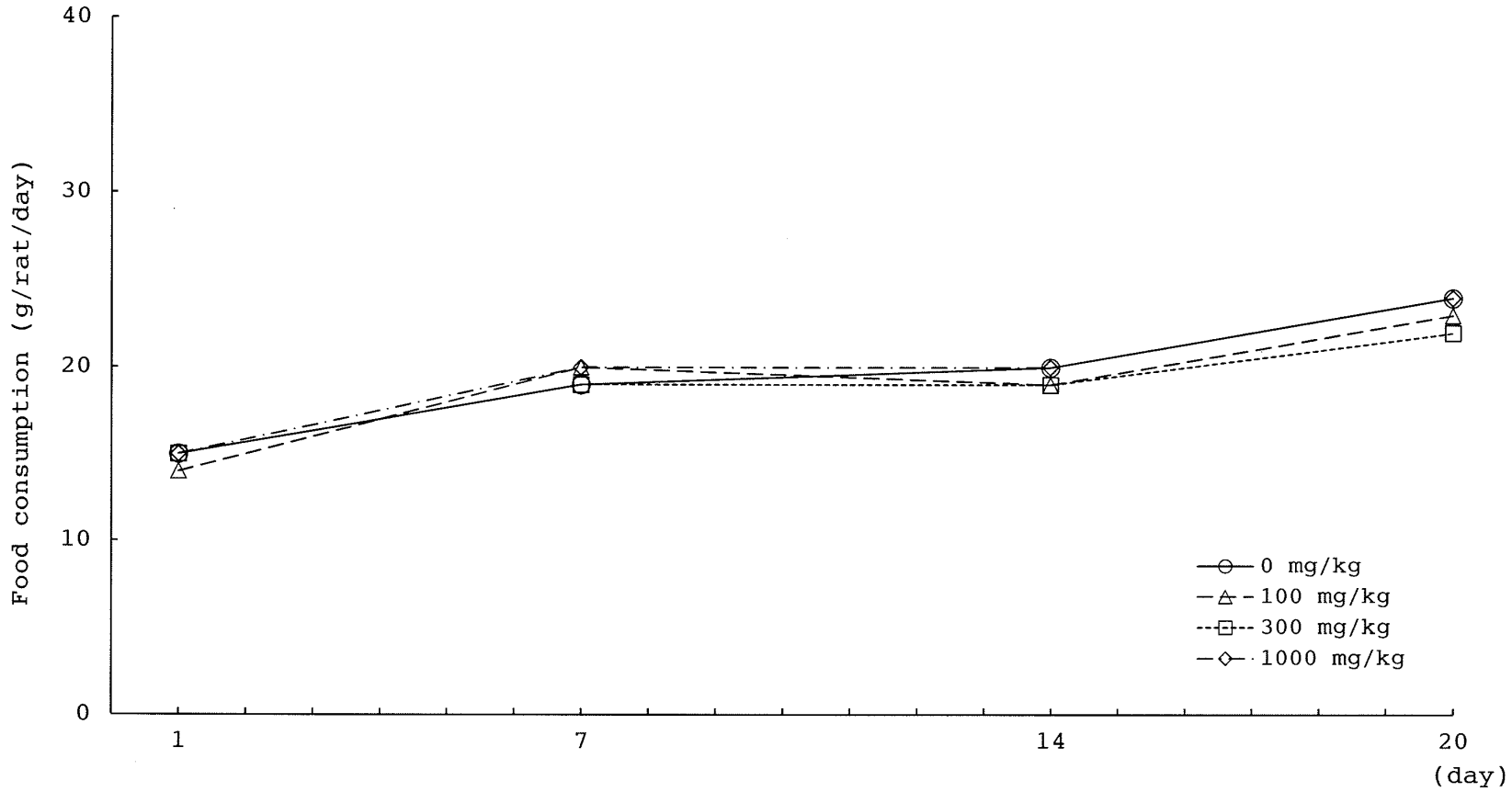


Fig.15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of dams (F0 gestation Day 0-25)

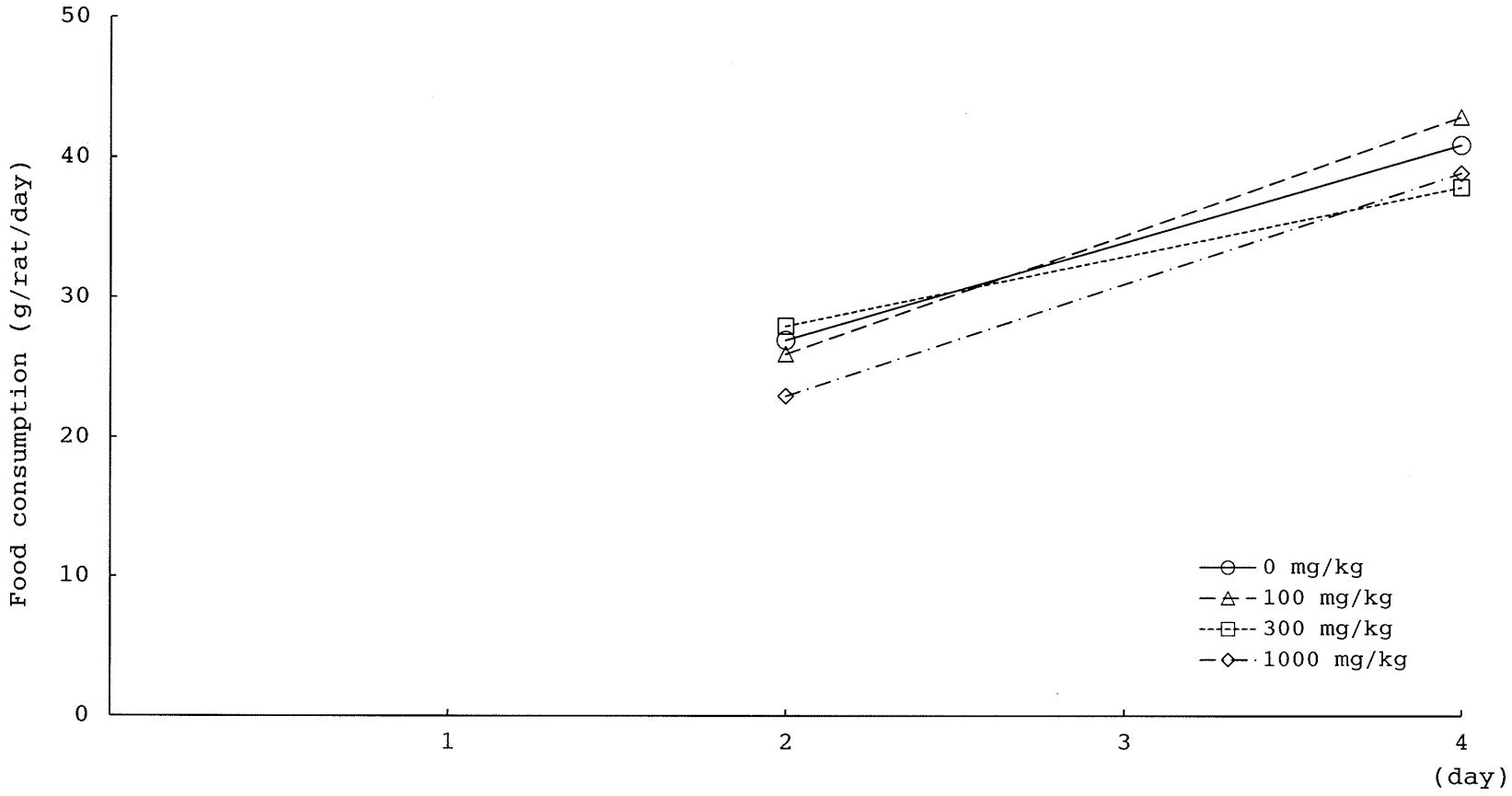


Fig.16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of dams (F0 lactation Day 0-5)

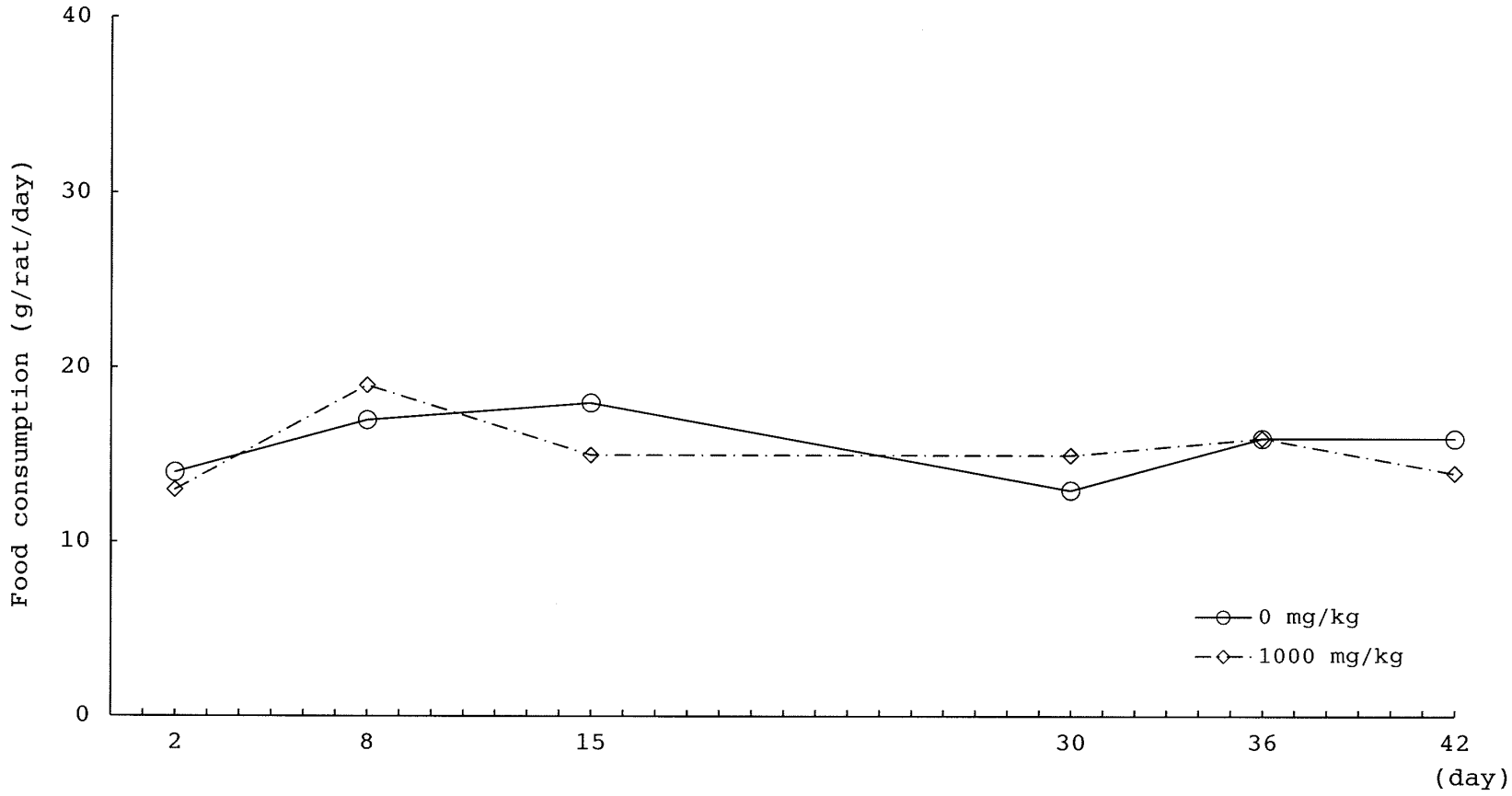


Fig.17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of female rats (Administration period)

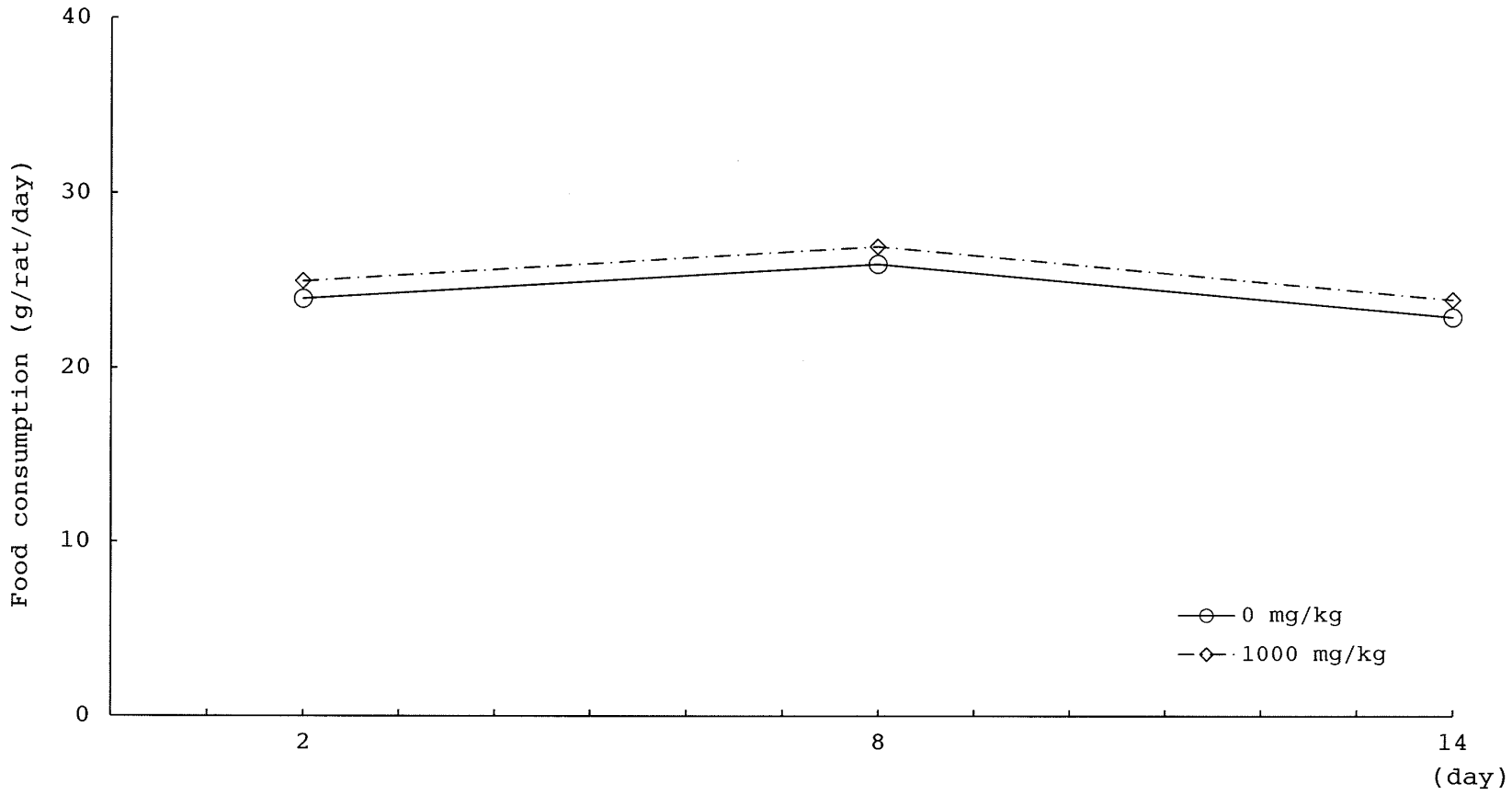


Fig.18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of male rats (Recovery period)

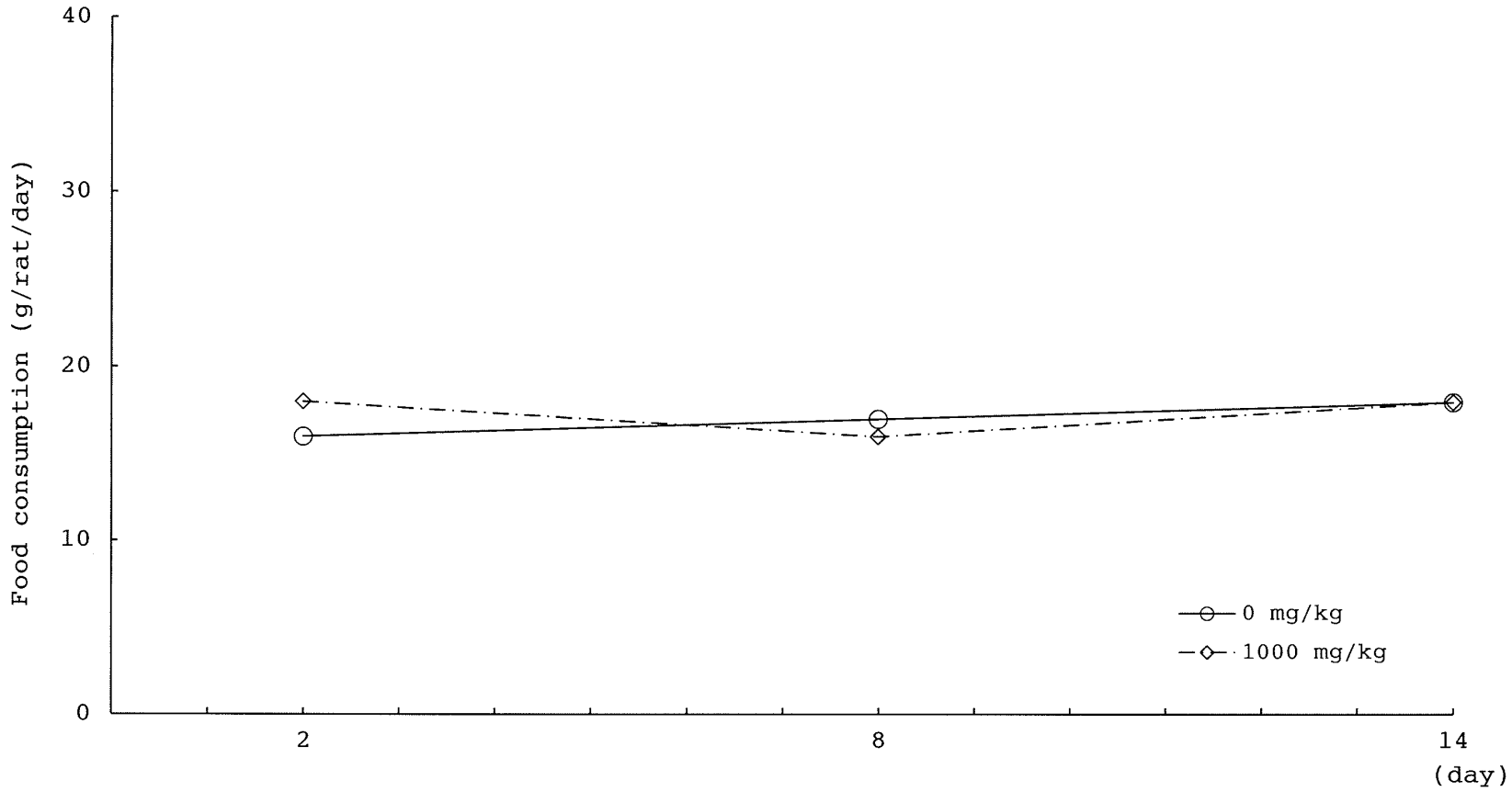


Fig.19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Food consumption of female rats (Recovery period)

Study No.: R-1168

Table 1-1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Species : Rat

Test article Dose	Signs	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
hexaoxanon 0 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 100 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Species : Rat

Test article Dose	Signs	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
hexaoxanon 0 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 100 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Species : Rat

Test article Dose	Signs	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
hexaoxanon 0 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	7
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 100 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	7
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

Study No.: R-1168

Table 1-4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Species : Rat

Test article Dose	Signs	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
hexaoxanon 0 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 100 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Species : Rat

Test article Dose	Signs	/Day 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
hexaoxanon 0 mg/kg	Number of animals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	2	0
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
hexaoxanon 100 mg/kg	Number of animals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	2	0
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
hexaoxanon 1000 mg/kg	Number of animals	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	2	0
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Species : Rat

Test article Dose	Signs	/Day 0	1	2	3	4	5a)
hexaoxanon 0 mg/kg	Number of animals	11	11	11	11	11	11
	Number of animals with abnormal findings	0	0	0	0	0	0
hexaoxanon 100 mg/kg	Number of animals	11	11	11	11	11	11
	Number of animals with abnormal findings	0	0	0	0	0	0
hexaoxanon 300 mg/kg	Number of animals	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	11	11	10b)	10	10	10
	Number of animals with abnormal findings	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

b) : One animal was necropsied on lactation day 1 because all offspring died.

Study No.: R-1168

Table 1-7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Species : Rat

Test article Dose	Signs	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
hexaoxanon 0 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Species : Rat

Test article Dose	Signs	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
hexaoxanon 0 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Table 1-9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Species : Rat

Test article Dose	Signs	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
hexaoxanon 0 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	10	10	10	10	10	10	10	10	10	10	10	10	10	10	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

Study No.: R-1168

Table 1-10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Male Species : Rat

Test article Dose	Signs	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
hexaoxanon 0 mg/kg	Number of animals	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

Study No.: R-1168

Table 1-11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Female Species : Rat

Test article Dose	Signs	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
hexaoxanon 0 mg/kg	Number of animals	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	Number of animals	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Number of animals with abnormal findings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

Table 2 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Posture NC N	F	H	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article Dose		Posture NC N	F	H	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article Dose		Posture NC N	F	H	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior 0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Posture NC			Convulsion NC			
		N	F	H	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	0

Test article Dose		Abnormal NC behavior			
		0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	1	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 25 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 26 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	11	1	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 27 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 28 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 29 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 30 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 31 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 32 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	11	1	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 33 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 34 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 35 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 36 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 37 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 38 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	1	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 39 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 40 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 41 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	11	1	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 42 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 43 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 44 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	10	2	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 45 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0	0

Test article		Skin NC				Secretions-Eye, Nose NC		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	12	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 46 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0	12	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	12	0	0	12	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 47 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	11	1	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 48 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	11	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 49 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0	11	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	11	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 50 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 51 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	11	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 52 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0	11	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	11	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 53 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 54 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	11	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 55 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0	11	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	11	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 56 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 57 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	11	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 58 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0	11	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	11	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 59 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 60 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article / Dose		Ease of removal from cage NC					Fur condition NC			
		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article / Dose		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	12	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 61 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Test article		Piloerection NC		Pupil size NC				Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 62 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 63 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 64 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 65 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 66 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	9	1	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 67 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 68 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 69 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 70 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 71 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 72 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 73 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	10	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0	10	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 74 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	9	1	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 75 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	5	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0	5	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 76 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 77 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	3	2	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	5	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0	5	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 78 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 79 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	5	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0	5	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 80 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 81 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Ease of removal from cage NC					Fur condition NC			
Dose		-1	0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0

Test article		Skin NC				Secretions- NC Eye, Nose		Exophthalmos NC	
Dose		0	1	2	3	0	1	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	5	0

Test article		Palpebral NC closure				Mucosal NC membranes				Lacrimation NC	
Dose		0	1	2	3	0	1	2	3	0	1
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0	5	0

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 82 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Piloerection NC		Pupil size NC			Salivation NC			
Dose		0	1	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC respiration				Vocalization NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Reactivity to NC handling				
Dose		-1	0	1	2	3
hexaoxanon 0 mg/kg	n	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0

Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 83 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 84 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 300 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	7	5	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 85 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	4	0
	S.D.	2	1
hexaoxanon	n	12	12
100 mg/kg	Mean	4	0
	S.D.	2	1
hexaoxanon	n	12	12
300 mg/kg	Mean	4	0
	S.D.	2	1
hexaoxanon	n	12	12
1000 mg/kg	Mean	3	1
	S.D.	2	1

Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 86 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 87 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	1	11	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 100 mg/kg	n	12	0	0	8	4	0	0
hexaoxanon 300 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	7	5	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 88 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	3	0
	S.D.	2	0
hexaoxanon	n	12	12
100 mg/kg	Mean	5	0
	S.D.	1	0
hexaoxanon	n	12	12
300 mg/kg	Mean	4	0
	S.D.	2	1
hexaoxanon	n	12	12
1000 mg/kg	Mean	4	0
	S.D.	2	1

Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 89 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 90 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	1	11	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	9	3	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	10	2	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 91 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	5	1
	S.D.	3	1
hexaoxanon	n	12	12
100 mg/kg	Mean	5	0
	S.D.	2	1
hexaoxanon	n	12	12
300 mg/kg	Mean	5	0
	S.D.	2	0
hexaoxanon	n	12	12
1000 mg/kg	Mean	5	0
	S.D.	2	1

Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 92 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 93 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	8	4	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	6	6	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 94 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	4	0
	S.D.	2	1
hexaoxanon	n	12	12
100 mg/kg	Mean	5	0
	S.D.	2	0
hexaoxanon	n	12	12
300 mg/kg	Mean	5	0
	S.D.	1	0
hexaoxanon	n	12	12
1000 mg/kg	Mean	5	0
	S.D.	2	0

Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 95 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 96 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article / Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article / Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 300 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	7	5	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 97 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	4	0
	S.D.	2	0
hexaoxanon	n	12	12
100 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	4	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
1000 mg/kg	Mean	4	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 98 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 99 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	7	5	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 100 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	5	0
	S.D.	1	0
hexaoxanon	n	12	12
100 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
1000 mg/kg	Mean	4	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 101 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 102 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 300 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	11	1	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 103 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	6	0
	S.D.	2	0
hexaoxanon	n	12	12
100 mg/kg	Mean	6	0
	S.D.	2	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	7	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
1000 mg/kg	Mean	8	0
	S.D.	3	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 104 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 100 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	0	12	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 105 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 100 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	12	0	0	0	12	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 100 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	10	2	0	0
hexaoxanon 1000 mg/kg	n	12	0	0	9	3	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 106 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	12	12
0 mg/kg	Mean	7	0
	S.D.	2	0
hexaoxanon	n	12	12
100 mg/kg	Mean	7	0
	S.D.	2	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	8	0
	S.D.	2	0
			EF
hexaoxanon	n	12	12
1000 mg/kg	Mean	7	0
	S.D.	3	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 107 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	11	0	0	11	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 108 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	11	1	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 109 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	11	11
0 mg/kg	Mean	7	0
	S.D.	2	0
hexaoxanon	n	11	11
100 mg/kg	Mean	8	0
	S.D.	2	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	7	0
	S.D.	2	0
			EF
hexaoxanon	n	11	11
1000 mg/kg	Mean	8	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 110 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	11	0	0	11	0	0	0

Test article / Dose		Abnormal NC behavior 0	1	2	3	Stereotypy NC 0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 111 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	10	1	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 112 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	11	11
0 mg/kg	Mean	7	0
	S.D.	2	0
hexaoxanon	n	11	11
100 mg/kg	Mean	7	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	7	0
	S.D.	1	0
			EF
hexaoxanon	n	11	11
1000 mg/kg	Mean	7	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 113 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	11	0	0	11	0	0	0

Test article / Dose		Abnormal NC behavior 0	1	2	3	Stereotypy NC 0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 114 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 115 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	11	11
0 mg/kg	Mean	6	0
	S.D.	3	0
hexaoxanon	n	11	11
100 mg/kg	Mean	6	0
	S.D.	2	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	6	0
	S.D.	2	0
			EF
hexaoxanon	n	11	11
1000 mg/kg	Mean	6	0
	S.D.	3	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 116 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	11	0	0	11	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	0	11	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 117 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	11	0	0	0	11	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	11	0	0	11	0	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 118 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	11	11
0 mg/kg	Mean	4	0
	S.D.	2	0
hexaoxanon	n	11	11
100 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	11	11
1000 mg/kg	Mean	4	0
	S.D.	1	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 119 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	0	0	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	0	0	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 120 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		Gait NC					Posture NC		
		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 100 mg/kg	n	0	11	0	0	0	11	0	0
hexaoxanon 300 mg/kg	n	0	12	0	0	0	12	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Test article Dose		Grooming NC			Urination NC			
		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 100 mg/kg	n	11	0	0	11	0	0	0
hexaoxanon 300 mg/kg	n	12	0	0	12	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 121 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	11	11
0 mg/kg	Mean	6	0
	S.D.	1	0
hexaoxanon	n	11	11
100 mg/kg	Mean	5	0
	S.D.	1	0
			EF
hexaoxanon	n	12	12
300 mg/kg	Mean	5	0
	S.D.	2	0
			EF
hexaoxanon	n	10	10
1000 mg/kg	Mean	6	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 122 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 123 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	9	1	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 124 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	7	0
	S.D.	1	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	7	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 125 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 126 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 127 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	7	0
	S.D.	2	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	7	0
	S.D.	1	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 128 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 129 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 130 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 3 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	6	0
	S.D.	1	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	7	0
	S.D.	1	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 131 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 132 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	8	2	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 133 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 4 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	8	0
	S.D.	3	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	8	0
	S.D.	1	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 134 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 135 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 136 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 5 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	8	0
	S.D.	3	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	8	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 137 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	10	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	0	10	0	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	0	10	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	10	0	0	0	10	0	0
hexaoxanon 1000 mg/kg	n	0	10	0	0	0	10	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 138 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	10	0	0	9	1	0	0
hexaoxanon 1000 mg/kg	n	10	0	0	10	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 139 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	10	10
0 mg/kg	Mean	8	0
	S.D.	2	0
hexaoxanon	n	10	10
1000 mg/kg	Mean	7	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 140 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	0

Test article / Dose		Abnormal NC behavior 0	1	2	3	Stereotypy NC 0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article / Dose		Gait NC U	0	1	2	3	Posture NC N	F	H
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 141 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	4	1	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	4	1	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 142 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	5	5
0 mg/kg	Mean	5	0
	S.D.	2	0
hexaoxanon	n	5	5
1000 mg/kg	Mean	5	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 143 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 144 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	4	1	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	4	1	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 145 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	5	5
0 mg/kg	Mean	3	0
	S.D.	1	0
hexaoxanon	n	5	5
1000 mg/kg	Mean	6	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 146 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 147 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	4	1	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	5	0	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 148 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	5	5
0 mg/kg	Mean	7	0
	S.D.	4	0
hexaoxanon	n	5	5
1000 mg/kg	Mean	6	0
	S.D.	2	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 149 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	0

Test article		Abnormal NC behavior				Stereotypy NC			
Dose		0	1	2	3	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Test article		Gait NC					Posture NC		
Dose		U	0	1	2	3	N	F	H
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 150 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Grooming NC			Urination NC			
Dose		0	1	2	0	1	2	3
hexaoxanon 0 mg/kg	n	5	0	0	3	2	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	3	2	0	0

Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Not calculated : NC
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 151 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Rearing	Defecation count
hexaoxanon	n	5	5
0 mg/kg	Mean	8	0
	S.D.	3	0
hexaoxanon	n	5	5
1000 mg/kg	Mean	8	0
	S.D.	3	0
			EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 152 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article		Auditory response				Approach response			Touch response		
Dose		-2	-1	0	1	-1	0	1	-1	0	1
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
hexaoxanon 100 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 300 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF

Test article		Tail pinch response				Pupillary reflex			
Dose		-2	-1	0	1	P	F	L	R
hexaoxanon 0 mg/kg	n	0	0	5	0	5	0	0	0
hexaoxanon 100 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 300 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 1000 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 153 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		Aerial righting reflex	Landing foot splay mm
hexaoxanon	n	5	5
0 mg/kg	Mean	0	87
	S.D.	0	10
hexaoxanon	n	5	5
100 mg/kg	Mean	0	71
	S.D.	0	20
		EF	
hexaoxanon	n	5	5
300 mg/kg	Mean	0	86
	S.D.	0	6
		EF	
hexaoxanon	n	5	5
1000 mg/kg	Mean	0	78
	S.D.	0	14
		EF	

Aerial righting reflex) Total score

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 154 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article		Auditory response				Approach response			Touch response		
Dose		-2	-1	0	1	-1	0	1	-1	0	1
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
hexaoxanon 100 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 300 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF

Test article		Tail pinch response				Pupillary reflex			
Dose		-2	-1	0	1	P	F	L	R
hexaoxanon 0 mg/kg	n	0	0	5	0	5	0	0	0
hexaoxanon 100 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 300 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
hexaoxanon 1000 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 155 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		Aerial righting reflex	Landing foot splay mm
hexaoxanon	n	5	5
0 mg/kg	Mean	0	52
	S.D.	0	12
hexaoxanon	n	5	5
100 mg/kg	Mean	0	70
	S.D.	0	19
		EF	
hexaoxanon	n	5	5
300 mg/kg	Mean	0	57
	S.D.	0	13
		EF	
hexaoxanon	n	5	5
1000 mg/kg	Mean	0	66
	S.D.	0	12
		EF	

Aerial righting reflex) Total score

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 156 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article		Auditory response				Approach response			Touch response		
Dose		-2	-1	0	1	-1	0	1	-1	0	1
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF

Test article		Tail pinch response				Pupillary reflex			
Dose		-2	-1	0	1	P	F	L	R
hexaoxanon 0 mg/kg	n	0	0	5	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 157 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article Dose		Aerial righting reflex	Landing foot splay mm
hexaoxanon	n	5	5
0 mg/kg	Mean	0	75
	S.D.	0	19
hexaoxanon	n	5	5
1000 mg/kg	Mean	0	68
	S.D.	0	25
		EF	

Aerial righting reflex) Total score

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 158 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article		Auditory response				Approach response			Touch response		
Dose		-2	-1	0	1	-1	0	1	-1	0	1
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF

Test article		Tail pinch response				Pupillary reflex			
Dose		-2	-1	0	1	P	F	L	R
hexaoxanon 0 mg/kg	n	0	0	5	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 159 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Aerial righting reflex	Landing foot splay mm
hexaoxanon	n	5	5
0 mg/kg	Mean	0	77
	S.D.	0	17
hexaoxanon	n	5	5
1000 mg/kg	Mean	0	80
	S.D.	0	21
		EF	

Aerial righting reflex) Total score

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 160 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article		Auditory response				Approach response			Touch response		
Dose		-2	-1	0	1	-1	0	1	-1	0	1
hexaoxanon 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF

Test article		Tail pinch response				Pupillary reflex			
Dose		-2	-1	0	1	P	F	L	R
hexaoxanon 0 mg/kg	n	0	0	5	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 161 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Aerial righting reflex	Landing foot splay mm
hexaoxanon 0 mg/kg	n	5	5
	Mean	0	79
	S.D.	0	13
hexaoxanon 1000 mg/kg	n	5	5
	Mean	0	78
	S.D.	0	23
		EF	

Aerial righting reflex) Total score

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 162 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Grip strength Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		Grip strength of fore limb g	Grip strength of hind limb g
hexaoxanon	n	5	5
0 mg/kg	Mean	1645	887
	S.D.	246	142
hexaoxanon	n	5	5
100 mg/kg	Mean	1716	870
	S.D.	225	75
hexaoxanon	n	5	5
300 mg/kg	Mean	1686	801
	S.D.	212	86
hexaoxanon	n	5	5
1000 mg/kg	Mean	1562	832
	S.D.	126	159

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 163 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Grip strength Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		Grip strength of fore limb g	Grip strength of hind limb g
hexaoxanon	n	5	5
0 mg/kg	Mean	1344	817
	S.D.	181	51
hexaoxanon	n	5	5
100 mg/kg	Mean	1362	782
	S.D.	54	121
hexaoxanon	n	5	5
300 mg/kg	Mean	1300	738
	S.D.	176	144
hexaoxanon	n	5	5
1000 mg/kg	Mean	1338	823
	S.D.	138	106

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 164 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Grip strength Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article Dose		Grip strength of fore limb g	Grip strength of hind limb g
hexaoxanon	n	5	5
0 mg/kg	Mean	1379	670
	S.D.	109	119
hexaoxanon	n	5	5
1000 mg/kg	Mean	1263	720
	S.D.	262	74

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 165 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Grip strength Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		Grip strength of fore limb g	Grip strength of hind limb g
hexaoxanon 0 mg/kg	n	5	5
	Mean	2027	1028
	S.D.	156	74
hexaoxanon 1000 mg/kg	n	5	5
	Mean	1913	1031
	S.D.	109	239

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 166 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Grip strength Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		Grip strength of fore limb g	Grip strength of hind limb g
hexaoxanon	n	5	5
0 mg/kg	Mean	1587	836
	S.D.	77	116
hexaoxanon	n	5	5
1000 mg/kg	Mean	1592	882
	S.D.	193	122

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 167 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 mating

Generation : F0 Sex : Male Week : 6 Species : Rat

Test article Dose		0'-10' Count	10'-20' Count	20'-30' Count	30'-40' Count	40'-50' Count	50'-60' Count	Total(0'-60') Count
hexaoxanon	n	5	5	5	5	5	5	5
0 mg/kg	Mean	439	327	251	122	80	74	1293
	S.D.	65	103	111	107	155	98	508
hexaoxanon	n	5	5	5	5	5	5	5
100 mg/kg	Mean	417	346	295	194	99	137	1488
	S.D.	33	23	98	123	87	143	349
hexaoxanon	n	5	5	5	5	5	5	5
300 mg/kg	Mean	427	321	208	167	123	74	1320
	S.D.	39	114	126	185	164	152	695
hexaoxanon	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	417	279	185	90	107	155	1232
	S.D.	41	77	103	80	147	129	321

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 168 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Species : Rat

Test article Dose		0'-10' Count	10'-20' Count	20'-30' Count	30'-40' Count	40'-50' Count	50'-60' Count	Total(0'-60') Count
hexaoxanon	n	5	5	5	5	5	5	5
0 mg/kg	Mean	363	241	105	129	94	57	990
	S.D.	70	82	107	115	71	76	340
hexaoxanon	n	5	5	5	5	5	5	5
100 mg/kg	Mean	336	218	131	127	132	76	1019
	S.D.	108	144	115	151	123	77	452
hexaoxanon	n	5	5	5	5	5	5	5
300 mg/kg	Mean	323	169	87	93	87	154	913
	S.D.	72	134	107	97	77	89	491
hexaoxanon	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	355	172	133	63	89	72	884
	S.D.	88	107	94	49	119	122	483

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 169 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : Administration

Generation : F0 Sex : Female Week : 6 Species : Rat

Test article Dose		0'-10' Count	10'-20' Count	20'-30' Count	30'-40' Count	40'-50' Count	50'-60' Count	Total(0'-60') Count
hexaoxanon	n	5	5	5	5	5	5	5
0 mg/kg	Mean	424	277	125	115	48	169	1158
	S.D.	36	42	130	96	44	154	257
hexaoxanon	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	447	378	271	219	159	104	1578
	S.D.	26	58	128	169	132	96	150
			T2 *					T2 *

Significantly different from hexaoxanon 0 mg/kg : * P<0.05

T2 : Student t-test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 170 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : Recovery

Generation : F0 Sex : Male Week : 2 Species : Rat

Test article Dose		0'-10' Count	10'-20' Count	20'-30' Count	30'-40' Count	40'-50' Count	50'-60' Count	Total(0'-60') Count
hexaoxanon	n	5	5	5	5	5	5	5
0 mg/kg	Mean	388	300	280	324	247	314	1852
	S.D.	86	110	81	90	154	57	472
hexaoxanon	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	388	312	317	288	266	352	1923
	S.D.	52	112	59	60	60	42	284

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 2 - 171 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : Recovery

Generation : F0 Sex : Female Week : 2 Species : Rat

Test article Dose		0'-10' Count	10'-20' Count	20'-30' Count	30'-40' Count	40'-50' Count	50'-60' Count	Total(0'-60') Count
hexaoxanon	n	5	5	5	5	5	5	5
0 mg/kg	Mean	430	312	230	134	135	54	1295
	S.D.	94	56	98	149	127	88	382
hexaoxanon	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	433	307	341	272	160	94	1608
	S.D.	41	38	77	102	100	137	117

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-42

Sex : Male Unit : g Species : Rat

Test article		/Day							Body weight
Dose		1	8	15	22	29	36	42	gain
hexaoxanon	n	12	12	12	12	12	12	12	12
0 mg/kg	Mean	409	426	445	460	479	496	511	101
	S.D.	19	19	20	17	19	18	23	16
hexaoxanon	n	12	12	12	12	12	12	12	12
100 mg/kg	Mean	411	425	443	459	478	489	501	90
	S.D.	16	18	18	19	22	24	28	19
hexaoxanon	n	12	12	12	12	12	12	12	12
300 mg/kg	Mean	411	431	455	475	496	513	533	122
	S.D.	13	21	27	31	36	37	43	33
hexaoxanon	n	12	12	12	12	12	12	12	12
1000 mg/kg	Mean	409	426	440	458	476	485	503	94
	S.D.	17	20	21	21	24	31	27	15

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 1	8	15	Body weight gain
hexaoxanon 0 mg/kg	n	12	12	12	12
	Mean	250	260	267	17
	S.D.	4	10	12	10
hexaoxanon 100 mg/kg	n	12	12	12	12
	Mean	251	258	267	16
	S.D.	14	14	17	9
hexaoxanon 300 mg/kg	n	12	12	12	12
	Mean	250	261	270	20
	S.D.	12	12	13	8
hexaoxanon 1000 mg/kg	n	12	12	12	12
	Mean	251	262	270	19
	S.D.	16	14	17	7

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 gestation Day 0-25

Sex : Female Unit : g Species : Rat

Test article		/Day				Body weight
Dose		0	7	14	20	gain
hexaoxanon	n	11	11	11	11	11
0 mg/kg	Mean	274	309	341	433	159
	S.D.	11	15	15	17	10
hexaoxanon	n	11	11	11	11	11
100 mg/kg	Mean	273	305	340	429	157
	S.D.	16	16	18	23	16
hexaoxanon	n	12	12	12	12	12
300 mg/kg	Mean	273	306	339	425	152
	S.D.	15	16	16	17	17
hexaoxanon	n	11	11	11	11	11
1000 mg/kg	Mean	274	308	344	428	155
	S.D.	14	15	18	21	13

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 lactation Day 0-5

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 0	4	Body weight gain
hexaoxanon 0 mg/kg	n	11	11	11
	Mean	333	345	12
	S.D.	20	16	17
hexaoxanon 100 mg/kg	n	11	11	11
	Mean	321	339	18
	S.D.	21	16	10
hexaoxanon 300 mg/kg	n	12	12	12
	Mean	327	341	15
	S.D.	17	23	16
hexaoxanon 1000 mg/kg	n	11	10	10
	Mean	329	338	9
	S.D.	22	22	13

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Administration

Sex : Female Unit : g Species : Rat

Test article		/Day							Body weight
Dose		1	8	15	22	29	36	42	gain
hexaoxanon	n	10	10	10	10	10	10	10	10
0 mg/kg	Mean	249	257	267	276	283	292	300	51
	S.D.	12	13	12	15	21	18	21	15
hexaoxanon	n	10	10	10	10	10	10	10	10
1000 mg/kg	Mean	249	261	264	272	279	285	291	42
	S.D.	11	12	11	15	13	16	16	10

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Male Unit : g Species : Rat

Test article		/Day			Body weight
Dose		1	8	14	gain
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	503	523	529	26
	S.D.	20	27	28	12
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	502	519	530	28
	S.D.	19	21	21	8

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 3 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 1	8	14	Body weight gain
hexaoxanon 0 mg/kg	n	5	5	5	5
	Mean	287	286	291	4
	S.D.	20	23	18	7
hexaoxanon 1000 mg/kg	n	5	5	5	5
	Mean	291	298	303	12
	S.D.	16	12	10	6

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Unit : g Species : Rat

Test article		/Day						Total food
Dose		2	8	15	30	36	42	consumption
hexaoxanon	n	12	12	12	12	12	12	12
0 mg/kg	Mean	22	22	21	18	21	19	123
	S.D.	3	2	2	2	4	3	9
hexaoxanon	n	12	12	12	12	12	12	12
100 mg/kg	Mean	22	21	21	18	19	19	120
	S.D.	3	3	3	2	1	2	9
						ST *		
hexaoxanon	n	12	12	12	12	12	12	12
300 mg/kg	Mean	21	23	25	20	22	21	132
	S.D.	3	3	3	3	2	2	12
				DT **	DT *			
hexaoxanon	n	12	12	12	12	12	12	12
1000 mg/kg	Mean	21	22	22	21	21	21	127
	S.D.	3	3	4	3	4	2	14
					DT *			

Significantly different from hexaoxanon 0 mg/kg : * P<0.05, ** P<0.01

DT : Dunnett test (two-side), ST : Steel test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 2	8	15	Total food consumption
hexaoxanon 0 mg/kg	n	12	12	12	12
	Mean	15	17	17	49
	S.D.	2	3	3	5
hexaoxanon 100 mg/kg	n	12	12	12	12
	Mean	14	17	16	47
	S.D.	2	4	3	6
hexaoxanon 300 mg/kg	n	12	12	12	12
	Mean	12	17	17	46
	S.D.	3	3	3	5
		DT *			
hexaoxanon 1000 mg/kg	n	12	12	12	12
	Mean	14	19	20	53
	S.D.	2	3	5	8

Significantly different from hexaoxanon 0 mg/kg : * P<0.05

DT : Dunnett test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 gestation Day 0-25

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 1	7	14	20	Total food consumption
hexaoxanon	n	11	11	11	11	11
0 mg/kg	Mean	15	19	20	24	78
	S.D.	3	3	2	3	7
hexaoxanon	n	11	11	11	11	11
100 mg/kg	Mean	14	20	19	23	76
	S.D.	3	3	2	2	6
hexaoxanon	n	12	12	12	12	12
300 mg/kg	Mean	15	19	19	22	75
	S.D.	3	2	3	4	9
hexaoxanon	n	11	11	11	11	11
1000 mg/kg	Mean	15	20	20	24	80
	S.D.	4	2	3	2	6

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 lactation Day 0-5

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 2	4	Total food consumption
hexaoxanon 0 mg/kg	n	11	11	11
	Mean	27	41	68
	S.D.	8	6	14
hexaoxanon 100 mg/kg	n	11	11	11
	Mean	26	43	69
	S.D.	6	6	7
hexaoxanon 300 mg/kg	n	12	12	12
	Mean	28	38	66
	S.D.	7	12	16
hexaoxanon 1000 mg/kg	n	10	10	10
	Mean	23	39	62
	S.D.	5	7	10

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Female Unit : g Species : Rat

Test article		/Day						Total food
Dose		2	8	15	30	36	42	consumption
hexaoxanon	n	10	10	10	10	10	10	10
0 mg/kg	Mean	14	17	18	13	16	16	93
	S.D.	1	2	2	2	4	2	7
hexaoxanon	n	10	10	10	10	10	10	10
1000 mg/kg	Mean	13	19	15	15	16	14	92
	S.D.	3	3	2	3	7	3	9
				T2 **	T2 *			

Significantly different from hexaoxanon 0 mg/kg : * P<0.05, ** P<0.01

T2 : Student t-test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Male Unit : g Species : Rat

Test article Dose		/Day 2	8	14	Total food consumption
hexaoxanon 0 mg/kg	n	5	5	5	5
	Mean	24	26	23	73
	S.D.	2	1	3	5
hexaoxanon 1000 mg/kg	n	5	5	5	5
	Mean	25	27	24	77
	S.D.	4	2	1	6

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 4 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Female Unit : g Species : Rat

Test article Dose		/Day 2	8	14	Total food consumption
hexaoxanon 0 mg/kg	n	5	5	5	5
	Mean	16	17	18	51
	S.D.	2	2	3	5
hexaoxanon 1000 mg/kg	n	5	5	5	5
	Mean	18	16	18	52
	S.D.	2	4	1	4

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article / Dose		pH								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	>=9.0
hexaoxanon 0 mg/kg	n	0	0	0	0	2	0	0	2	1
hexaoxanon 100 mg/kg	n	0	0	0	1	0	0	2	2	0
hexaoxanon 300 mg/kg	n	0	0	0	0	3	0	0	2	0
hexaoxanon 1000 mg/kg	n	0	0	0	0	1	1	1	2	0

Test article / Dose		Protein					Ketones				
		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	0	0	4	1	0	0	1	4	0	0
hexaoxanon 100 mg/kg	n	0	1	2	2	0	0	1	4	0	0
hexaoxanon 300 mg/kg	n	0	1	2	2	0	0	2	3	0	0
hexaoxanon 1000 mg/kg	n	0	0	1	3	1	0	2	3	0	0

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		Glucose -	Glucose 1+	Glucose 2+	Glucose 3+	Glucose 4+	Occult Blood -	Occult Blood +/-	Occult Blood 1+	Occult Blood 2+	Occult Blood 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	0	5	0	0	0
hexaoxanon 100 mg/kg	n	5	0	0	0	0	4	1	0	0	0
hexaoxanon 300 mg/kg	n	5	0	0	0	0	4	1	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	3	2	0	0	0

Test article Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 100 mg/kg	n	4	1	0	0	5	0	0	0
hexaoxanon 300 mg/kg	n	3	2	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
hexaoxanon 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 100 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 300 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	0	0	0	0	0

Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		RBC -	RBC +/-	RBC 1+	RBC 2+	RBC 3+	WBC -	WBC +/-	WBC 1+	WBC 2+	WBC 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 100 mg/kg	n	5	0	0	0	0	4	1	0	0	0
hexaoxanon 300 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article Dose		Squamous epithelial cells -	Squamous epithelial cells +/-	Squamous epithelial cells 1+	Squamous epithelial cells 2+	Squamous epithelial cells 3+	Small round epithelial cells -	Small round epithelial cells +/-	Small round epithelial cells 1+	Small round epithelial cells 2+	Small round epithelial cells 3+
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 100 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 300 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	4	1	0	0	0

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article / Dose		Cast					Crystal phosphate salts				
		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	3	2	0	0	0
hexaoxanon 100 mg/kg	n	5	0	0	0	0	4	1	0	0	0
hexaoxanon 300 mg/kg	n	5	0	0	0	0	2	3	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	3	2	0	0	0

Test article / Dose		Crystal calcium oxalate				
		-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0
hexaoxanon 100 mg/kg	n	5	0	0	0	0
hexaoxanon 300 mg/kg	n	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0

Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
hexaoxanon	n	5	5	5	5	5	5
0 mg/kg	Mean	43	11.3	1709	0.8	2.9	1.4
	S.D.	6	3.6	255	0.4	0.6	0.4
hexaoxanon	n	5	5	5	5	5	5
100 mg/kg	Mean	38	13.0	1903	1.2	3.4	1.7
	S.D.	5	5.0	584	0.5	0.8	0.6
hexaoxanon	n	5	5	5	5	5	5
300 mg/kg	Mean	40	9.3	2346	1.2	3.2	1.7
	S.D.	9	4.6	324	0.4	0.8	0.5
hexaoxanon	n	5	5	5	5	5	5
1000 mg/kg	Mean	40	10.9	2014	1.0	3.2	1.6
	S.D.	4	2.4	327	0.2	0.5	0.3

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article / Dose		pH								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	>=9.0
hexaoxanon 0 mg/kg	n	0	0	2	0	1	0	2	0	0
hexaoxanon 1000 mg/kg	n	0	0	2	1	0	0	2	0	0

Test article / Dose		Protein					Ketones				
		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	3	0	1	1	0	4	1	0	0	0
hexaoxanon 1000 mg/kg	n	2	2	1	0	0	5	0	0	0	0

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article / Dose		Glucose					Occult Blood				
		-	1+	2+	3+	4+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Bilirubin				Urobilinogen			
		-	1+	2+	3+	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article		Color									
Dose		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
hexaoxanon 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	0	0	0	0	0

Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article / Dose		RBC -	RBC +/-	RBC 1+	RBC 2+	RBC 3+	WBC -	WBC +/-	WBC 1+	WBC 2+	WBC 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Squamous epithelial cells -	Squamous epithelial cells +/-	Squamous epithelial cells 1+	Squamous epithelial cells 2+	Squamous epithelial cells 3+	Small round epithelial cells -	Small round epithelial cells +/-	Small round epithelial cells 1+	Small round epithelial cells 2+	Small round epithelial cells 3+
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0	0

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	4	1	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0

Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article Dose		Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
hexaoxanon	n	5	5	5	5	5	5
0 mg/kg	Mean	32	8.2	1922	0.8	2.2	1.2
	S.D.	5	3.1	436	0.2	0.5	0.2
hexaoxanon	n	5	5	5	5	5	5
1000 mg/kg	Mean	31	10.8	1794	1.1	2.5	1.5
	S.D.	4	6.3	415	0.5	0.9	0.7

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article / Dose		pH								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	>=9.0
hexaoxanon 0 mg/kg	n	0	0	0	0	0	0	1	4	0
hexaoxanon 1000 mg/kg	n	0	0	0	0	0	0	1	4	0

Test article / Dose		Protein					Ketones				
		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	2	3	0	0	0	1	4	0	0	0
hexaoxanon 1000 mg/kg	n	3	2	0	0	0	1	3	1	0	0

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article / Dose		Glucose -	Glucose 1+	Glucose 2+	Glucose 3+	Glucose 4+	Occult Blood -	Occult Blood +/-	Occult Blood 1+	Occult Blood 2+	Occult Blood 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	3	2	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	3	2	0	0	0

Test article / Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
hexaoxanon 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	0	0	0	0	0

Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article / Dose		RBC -	RBC +/-	RBC 1+	RBC 2+	RBC 3+	WBC -	WBC +/-	WBC 1+	WBC 2+	WBC 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Squamous epithelial cells -	Squamous epithelial cells +/-	Squamous epithelial cells 1+	Squamous epithelial cells 2+	Squamous epithelial cells 3+	Small round epithelial cells -	Small round epithelial cells +/-	Small round epithelial cells 1+	Small round epithelial cells 2+	Small round epithelial cells 3+
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	4	1	0	0	0

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	1	4	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	0	5	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0

Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article Dose		Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
hexaoxanon	n	5	5	5	5	5	5
0 mg/kg	Mean	46	18.7	1841	2.0	5.2	2.8
	S.D.	6	3.9	282	0.4	1.7	0.7
hexaoxanon	n	5	5	5	5	5	5
1000 mg/kg	Mean	45	18.4	2018	2.0	5.5	2.7
	S.D.	5	3.5	336	0.3	0.6	0.3

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article		pH								
Dose		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	>=9.0
hexaoxanon 0 mg/kg	n	0	0	0	0	1	0	0	4	0
hexaoxanon 1000 mg/kg	n	0	0	0	0	3	0	0	2	0

Test article		Protein					Ketones				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article / Dose		Glucose					Occult Blood				
		-	1+	2+	3+	4+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Bilirubin				Urobilinogen			
		-	1+	2+	3+	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	5	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	5	0	0	0

Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
hexaoxanon 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	0	0	0	0	0

Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article / Dose		RBC -	RBC +/-	RBC 1+	RBC 2+	RBC 3+	WBC -	WBC +/-	WBC 1+	WBC 2+	WBC 3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Squamous epithelial cells -	Squamous epithelial cells +/-	Squamous epithelial cells 1+	Squamous epithelial cells 2+	Squamous epithelial cells 3+	Small round epithelial cells -	Small round epithelial cells +/-	Small round epithelial cells 1+	Small round epithelial cells 2+	Small round epithelial cells 3+
hexaoxanon 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	0	5	0	0	0	5	0	0	0	0

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0	2	3	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0	4	1	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
hexaoxanon 0 mg/kg	n	5	0	0	0	0
hexaoxanon 1000 mg/kg	n	5	0	0	0	0

Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 5 - 24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article Dose		Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
hexaoxanon	n	5	5	5	5	5	5
0 mg/kg	Mean	33	9.3	2246	1.1	3.1	1.5
	S.D.	4	2.6	353	0.3	0.8	0.5
hexaoxanon	n	5	5	5	5	5	5
1000 mg/kg	Mean	40	12.6	1809	1.2	3.2	1.7
	S.D.	9	4.6	436	0.3	0.7	0.5

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Species : Rat

Test article Dose		RBC 10^4/μL	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT 10^4/μL	WBC 10^2/μL	LYMP %
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	884	15.4	46.4	52.4	17.4	33.1	2.0	92.9	87.7	75.7
	S.D.	17	0.3	1.7	1.2	0.1	0.6	0.3	9.1	22.1	8.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	868	15.0	44.3	51.1	17.3	33.8	2.1	92.4	73.5	75.6
	S.D.	38	0.5	1.2	1.8	0.9	0.6	0.4	8.9	16.4	6.9
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	866	15.1	45.3	52.4	17.4	33.3	2.1	98.0	83.4	73.3
	S.D.	18	0.3	1.2	1.2	0.3	0.3	0.4	9.2	21.2	4.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	856	15.1	45.1	52.7	17.6	33.4	1.9	95.9	63.8	76.8
	S.D.	27	0.2	1.4	0.9	0.5	0.6	0.3	7.4	17.9	6.3

Test article Dose		NEUT %	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	19.8	1.4	0.4	1.8	0.8	66.9	17.0	1.2	0.4	1.5
	S.D.	7.3	0.5	0.1	0.7	0.4	22.2	7.1	0.4	0.1	0.3
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	19.9	1.5	0.6	1.7	0.7	56.2	14.0	1.1	0.4	1.3
	S.D.	6.8	0.6	0.3	0.5	0.3	16.4	3.2	0.5	0.3	0.3
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	22.5	1.6	0.4	1.6	0.5	61.5	18.4	1.3	0.4	1.4
	S.D.	4.0	0.2	0.0	0.7	0.3	18.2	3.6	0.4	0.1	0.6
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	19.3	1.7	0.4	1.3	0.5	48.6	12.7	1.1	0.3	0.8
	S.D.	6.0	0.7	0.1	0.2	0.3	12.8	6.1	0.5	0.2	0.3

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Species : Rat

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	0.6	12.3	17.7	240
	S.D.	0.3	0.5	1.7	14
hexaoxanon	n	5	5	5	5
100 mg/kg	Mean	0.5	12.6	18.0	241
	S.D.	0.2	0.9	1.3	31
hexaoxanon	n	5	5	5	5
300 mg/kg	Mean	0.5	12.4	18.5	235
	S.D.	0.5	0.8	2.7	23
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	0.4	12.5	17.4	247
	S.D.	0.3	0.8	1.9	27

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		RBC 10^4/μL	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT 10^4/μL	WBC 10^2/μL	LYMP %
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	683	13.2	40.1	58.6	19.4	33.1	7.5	125.3	74.9	68.1
	S.D.	36	0.6	2.3	1.8	0.4	0.4	1.2	31.5	5.6	12.4
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	718	13.7	41.0	57.2	19.1	33.5	6.0	129.3	115.6	65.3
	S.D.	11	0.6	1.6	2.2	0.8	0.4	0.7	10.2	18.2	12.7
										DT *	
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	676	13.3	39.7	59.0	19.7	33.5	7.4	125.6	103.7	66.3
	S.D.	67	0.8	2.4	3.7	1.2	0.5	1.8	15.6	26.0	7.9
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	679	13.1	39.0	57.5	19.2	33.5	6.5	129.1	92.2	66.8
	S.D.	49	0.8	2.0	1.9	0.6	0.3	2.5	15.5	25.9	10.3

Test article Dose		NEUT %	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	27.7	0.8	0.3	2.6	0.5	50.7	21.0	0.6	0.2	2.0
	S.D.	12.4	0.4	0.0	0.6	0.3	7.3	10.3	0.4	0.0	0.4
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	30.3	0.6	0.4	2.8	0.8	73.7	36.8	0.6	0.4	3.3
	S.D.	12.4	0.1	0.1	1.0	0.5	3.7	17.7	0.1	0.2	1.4
										DT *	
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	29.4	0.7	0.3	2.6	0.6	69.8	29.4	0.7	0.4	2.8
	S.D.	8.9	0.3	0.1	0.9	0.3	22.1	8.1	0.2	0.1	1.3
										DT *	
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	29.3	0.8	0.3	2.2	0.6	60.8	27.9	0.7	0.3	1.9
	S.D.	11.2	0.4	0.1	0.8	0.2	17.1	14.9	0.3	0.1	0.5

Significantly different from hexaoxanon 0 mg/kg : * P<0.05
DT : Dunnett test (two-side)
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	0.4	12.0	14.5	290
	S.D.	0.2	0.6	2.0	35
hexaoxanon	n	5	5	5	5
100 mg/kg	Mean	0.8	12.0	15.1	297
	S.D.	0.6	0.6	1.0	43
hexaoxanon	n	5	5	5	5
300 mg/kg	Mean	0.7	12.4	15.9	256
	S.D.	0.4	0.6	0.8	45
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	0.5	12.6	16.8	286
	S.D.	0.2	0.6	2.2	35

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Female Species : Rat

Test article Dose		RBC 10^4/μL	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT 10^4/μL	WBC 10^2/μL	LYMP %
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	793	14.8	42.7	53.8	18.7	34.7	2.2	107.7	50.4	74.0
	S.D.	25	0.4	0.7	1.6	0.8	0.6	0.2	7.6	9.8	6.7
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	775	14.8	43.2	55.8	19.1	34.3	2.1	100.3	60.8	82.3
	S.D.	24	0.3	1.0	1.6	0.3	0.6	0.4	7.9	12.0	3.9
											T2 *

Test article Dose		NEUT %	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	21.4	1.7	0.4	1.8	0.7	37.6	10.5	0.8	0.2	0.9
	S.D.	6.9	0.6	0.1	0.4	0.3	9.6	3.4	0.3	0.1	0.2
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	13.4	1.3	0.5	1.7	0.9	50.2	7.9	0.8	0.3	1.0
	S.D.	3.5	0.6	0.2	0.5	0.4	11.3	1.8	0.4	0.2	0.4
		T2 *									

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	0.3	12.2	16.4	214
	S.D.	0.2	0.6	1.1	36
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	0.6	12.3	16.1	186
	S.D.	0.3	0.6	0.6	20

Significantly different from hexaoxanon 0 mg/kg : * P<0.05

T2 : Student t-test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Male Species : Rat

Test article Dose		RBC 10^4/μL	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT 10^4/μL	WBC 10^2/μL	LYMP %
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	904	15.4	46.3	51.3	17.0	33.2	1.8	96.8	69.1	76.8
	S.D.	24	0.5	1.6	2.5	0.8	0.4	0.2	11.4	19.6	3.6
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	860	15.0	44.8	52.1	17.4	33.4	2.2	93.6	82.8	78.4
	S.D.	18	0.3	1.1	1.3	0.4	0.5	0.3	3.8	20.3	3.1
		T2 *									

Test article Dose		NEUT %	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	18.5	2.3	0.4	1.6	0.5	52.7	13.1	1.6	0.3	1.1
	S.D.	3.7	0.6	0.2	0.3	0.2	13.2	5.7	0.5	0.2	0.5
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	16.9	1.8	0.3	1.9	0.7	65.1	14.0	1.4	0.3	1.5
	S.D.	3.0	0.6	0.1	0.6	0.4	17.1	3.9	0.3	0.2	0.1

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	0.3	12.2	18.5	245
	S.D.	0.1	0.8	2.1	13
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	0.6	11.9	19.8	247
	S.D.	0.3	0.3	1.6	19

Significantly different from hexaoxanon 0 mg/kg : * P<0.05
T2 : Student t-test (two-side)
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 6 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Female Species : Rat

Test article Dose		RBC 10^4/μL	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT 10^4/μL	WBC 10^2/μL	LYMP %
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	779	14.6	42.5	54.7	18.8	34.4	2.0	102.2	40.9	81.6
	S.D.	38	0.4	1.6	1.0	0.7	0.9	0.3	11.7	19.5	4.1
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	796	14.9	43.3	54.4	18.8	34.5	2.2	99.5	45.9	77.2
	S.D.	14	0.3	0.8	1.5	0.5	0.5	0.4	3.9	8.9	5.8

Test article Dose		NEUT %	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	14.0	1.7	0.3	1.8	0.6	32.8	6.2	0.7	0.1	0.8
	S.D.	3.6	0.6	0.1	0.4	0.2	14.1	4.5	0.4	0.1	0.6
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	18.7	1.7	0.3	1.5	0.6	35.4	8.5	0.8	0.1	0.7
	S.D.	5.2	0.8	0.1	0.4	0.3	7.2	2.5	0.5	0.0	0.2

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	0.3	11.4	14.8	180
	S.D.	0.2	0.5	2.5	19
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	0.3	11.5	15.2	183
	S.D.	0.2	0.5	2.2	3

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Species : Rat

Test article Dose		AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	69	46	58	0	422	31.1	51	28	83	0.1
	S.D.	16	13	22	0	35	8.3	9	10	11	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	57	39	36	1	412	10.6	56	32	86	0.1
	S.D.	9	5	7	1	59	2.4	14	28	19	0.0
							DT **				EF
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	65	43	49	0	505	13.5	52	37	85	0.1
	S.D.	7	2	14	1	114	6.7	12	25	21	0.0
							DT **				EF
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	63	38	46	1	390	11.9	60	26	91	0.1
	S.D.	6	7	12	1	41	4.3	13	9	14	0.0
							DT **				EF

Test article Dose		GLU mg/dL	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	136	16	0.27	144	4.7	107	9.9	6.4	5.9	3.2
	S.D.	9	2	0.02	2	0.2	2	0.3	0.6	0.2	0.2
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	137	15	0.28	143	4.6	105	9.8	6.2	5.8	3.1
	S.D.	6	2	0.04	1	0.1	2	0.3	0.6	0.2	0.1
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	140	15	0.26	143	4.3	106	9.7	5.8	5.8	3.1
	S.D.	9	1	0.03	1	0.2	1	0.3	0.3	0.3	0.1
						DT **					
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	132	16	0.27	143	4.3	107	9.7	5.7	5.8	3.1
	S.D.	5	4	0.04	1	0.2	1	0.5	0.4	0.2	0.1
						DT **					

Significantly different from hexaoxanon 0 mg/kg : ** P<0.01

DT : Dunnett test (two-side)

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Species : Rat

Test article Dose		A/G
hexaoxanon 0 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
hexaoxanon 100 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
hexaoxanon 300 mg/kg	n	5
	Mean	1.1
	S.D.	0.1
hexaoxanon 1000 mg/kg	n	5
	Mean	1.1
	S.D.	0.1

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	68	55	46	1	261	34.6	51	86	112	0.1
	S.D.	4	12	14	0	85	41.1	6	57	24	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	125	121	43	1	367	39.4	52	76	109	0.1
	S.D.	123	132	10	1	174	22.0	5	31	6	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	73	56	63	1	300	22.0	51	76	109	0.1
	S.D.	9	13	27	0	167	9.6	7	48	22	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	72	56	38	1	280	16.7	54	62	109	0.1
	S.D.	14	10	8	1	79	4.9	7	34	9	0.0

Test article Dose		GLU mg/dL	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	131	20	0.30	142	4.4	106	10.8	7.5	6.1	3.3
	S.D.	7	6	0.06	1	0.5	1	0.3	1.0	0.2	0.1
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	123	23	0.30	143	4.3	105	10.7	7.4	5.9	3.3
	S.D.	17	5	0.05	1	0.1	0	0.3	0.6	0.2	0.1
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	120	20	0.29	142	4.3	103	11.0	7.9	6.1	3.4
	S.D.	3	3	0.04	1	0.5	1	0.3	0.5	0.3	0.1
							DT **				
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	125	22	0.30	142	4.5	106	10.4	7.1	6.0	3.3
	S.D.	7	7	0.07	1	0.4	2	0.2	0.8	0.1	0.1
								DT *			

Significantly different from hexaoxanon 0 mg/kg : * P<0.05, ** P<0.01

DT : Dunnett test (two-side)

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		A/G
hexaoxanon 0 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
hexaoxanon 100 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
hexaoxanon 300 mg/kg	n	5
	Mean	1.3
	S.D.	0.1
hexaoxanon 1000 mg/kg	n	5
	Mean	1.2
	S.D.	0.1

Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Female Species : Rat

Test article Dose		AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	56	37	44	0	278	17.9	73	27	145	0.1
	S.D.	7	9	11	1	117	8.4	7	17	12	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	87	57	50	1	285	24.6	65	18	124	0.1
	S.D.	56	48	21	0	78	19.2	8	4	15	0.0
										T2 *	EF

Test article Dose		GLU mg/dL	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	139	16	0.28	143	4.1	110	10.1	4.1	6.3	3.7
	S.D.	10	2	0.04	1	0.3	0	0.2	0.9	0.4	0.3
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	134	19	0.32	144	4.1	109	10.1	4.1	6.4	3.7
	S.D.	18	4	0.05	0	0.3	0	0.2	0.9	0.3	0.3

Test article Dose		A/G
hexaoxanon	n	5
0 mg/kg	Mean	1.4
	S.D.	0.1
hexaoxanon	n	5
1000 mg/kg	Mean	1.4
	S.D.	0.2

Significantly different from hexaoxanon 0 mg/kg : * P<0.05
T2 : Student t-test (two-side)
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Male Species : Rat

Test article Dose		AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	65	38	44	0	338	29.1	58	31	90	0.1
	S.D.	12	10	11	0	79	31.2	7	9	9	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	62	39	39	0	350	13.2	58	35	90	0.1
	S.D.	7	5	6	0	19	4.8	17	12	16	0.0
											EF

Test article Dose		GLU mg/dL	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	140	18	0.28	143	4.8	107	9.7	5.8	5.9	3.0
	S.D.	9	3	0.04	1	0.2	1	0.3	0.4	0.2	0.1
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	149	18	0.25	144	4.4	107	9.8	5.4	6.0	3.0
	S.D.	10	4	0.02	1	0.2	1	0.1	0.3	0.2	0.1
						T2 *					

Test article Dose		A/G
hexaoxanon	n	5
0 mg/kg	Mean	1.1
	S.D.	0.1
hexaoxanon	n	5
1000 mg/kg	Mean	1.0
	S.D.	0.0

Significantly different from hexaoxanon 0 mg/kg : * P<0.05
T2 : Student t-test (two-side)
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 7 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Female Species : Rat

Test article Dose		AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	80	40	40	1	162	11.6	66	15	127	0.1
	S.D.	20	8	7	1	48	1.6	19	4	32	0.0
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	70	39	41	0	154	15.0	69	19	130	0.1
	S.D.	5	12	8	1	58	5.2	7	7	12	0.0
											EF

Test article Dose		GLU mg/dL	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	143	17	0.33	142	4.6	108	9.9	4.7	6.5	3.7
	S.D.	12	0	0.04	1	0.3	2	0.3	0.7	0.6	0.4
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	133	16	0.30	143	4.2	107	9.9	5.0	6.5	3.7
	S.D.	13	2	0.03	1	0.1	2	0.2	0.7	0.2	0.2
						A2 *					

Test article Dose		A/G
hexaoxanon	n	5
0 mg/kg	Mean	1.3
	S.D.	0.1
hexaoxanon	n	5
1000 mg/kg	Mean	1.3
	S.D.	0.1

Significantly different from hexaoxanon 0 mg/kg : * P<0.05
A2 : Welch test (two-side)
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Species : Rat

Test article		Body weight	Brain		Pituitary		Thyroid-RL		Thymus	
			AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
hexaoxanon	n	7	7	7	7	7	7	7	7	7
0 mg/kg	Mean	499	2.13	0.43	12.8	2.6	21.8	4.4	290	58
	S.D.	25	0.06	0.02	0.9	0.2	2.1	0.6	71	15
hexaoxanon	n	12	12	12	12	12	12	12	12	12
100 mg/kg	Mean	487	2.09	0.43	11.5	2.4	22.6	4.6	271	56
	S.D.	27	0.09	0.03	1.9	0.4	4.3	0.8	73	15
hexaoxanon	n	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	514	2.13	0.42	12.6	2.5	23.7	4.6	296	57
	S.D.	40	0.13	0.03	1.2	0.3	3.3	0.7	108	19
hexaoxanon	n	7	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	488	2.19	0.45	11.7	2.4	25.2	5.1	301	62
	S.D.	34	0.09	0.04	1.3	0.2	3.5	0.6	53	13

Test article		Heart		Liver		Spleen		Kidney-RL		Adrenal-RL	
		AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
hexaoxanon	n	7	7	7	7	7	7	7	7	7	7
0 mg/kg	Mean	1.45	0.29	13.04	2.62	0.76	0.15	3.34	0.67	63	13
	S.D.	0.12	0.02	0.54	0.10	0.08	0.01	0.23	0.04	11	3
hexaoxanon	n	12	12	12	12	12	12	12	12	12	12
100 mg/kg	Mean	1.42	0.29	12.79	2.62	0.70	0.14	3.19	0.65	59	12
	S.D.	0.13	0.02	1.49	0.17	0.06	0.01	0.30	0.05	10	2
hexaoxanon	n	12	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	1.50	0.29	13.47	2.61	0.74	0.14	3.43	0.67	64	13
	S.D.	0.14	0.02	1.83	0.20	0.16	0.03	0.39	0.06	7	1
hexaoxanon	n	7	7	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	1.38	0.28	12.65	2.59	0.72	0.15	3.32	0.68	54	11
	S.D.	0.03	0.02	1.00	0.14	0.13	0.03	0.16	0.04	5	1

AB : Absolute weight, RE : Relative weight by body weight
Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Species : Rat

Test article		Testis-RL		Epididymis-RL		Prostate		Seminalvesicle	
		AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	mg	mg/100g	g	g/100g	g	g/100g
hexaoxanon	n	7	7	7	7	7	7	7	7
0 mg/kg	Mean	3.41	0.68	1297	261	1.08	0.22	1.75	0.35
	S.D.	0.29	0.06	158	40	0.11	0.02	0.14	0.04
hexaoxanon	n	12	12	12	12	12	12	12	12
100 mg/kg	Mean	3.30	0.68	1268	260	1.17	0.24	1.70	0.35
	S.D.	0.28	0.06	137	20	0.19	0.04	0.40	0.08
hexaoxanon	n	12	12	12	12	12	12	12	12
300 mg/kg	Mean	3.34	0.65	1266	247	1.21	0.24	1.79	0.35
	S.D.	0.21	0.07	166	30	0.12	0.03	0.26	0.06
hexaoxanon	n	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	3.43	0.71	1324	271	1.05	0.22	1.69	0.35
	S.D.	0.33	0.08	157	27	0.10	0.02	0.21	0.04

AB : Absolute weight, RE : Relative weight by body weight
Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Species : Rat

Test article		Body weight	Brain		Pituitary		Thyroid-RL		Thymus	
			AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
hexaoxanon	n	11	11	11	11	11	11	11	11	11
0 mg/kg	Mean	323	1.97	0.61	17.9	5.5	17.7	5.5	224	69
	S.D.	14	0.08	0.03	1.2	0.3	2.4	0.7	45	13
hexaoxanon	n	11	11	11	11	11	11	11	11	11
100 mg/kg	Mean	321	1.95	0.61	17.3	5.4	17.0	5.3	194	60
	S.D.	14	0.09	0.02	2.2	0.7	2.2	0.8	48	14
hexaoxanon	n	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	321	1.99	0.62	17.9	5.6	16.0	5.0	219	68
	S.D.	21	0.10	0.03	2.8	0.8	3.8	1.1	38	10
hexaoxanon	n	10	10	10	10	10	10	10	10	10
1000 mg/kg	Mean	320	1.96	0.61	17.4	5.4	18.0	5.6	213	66
	S.D.	18	0.08	0.04	1.9	0.4	5.7	1.7	75	21

Test article		Heart		Liver		Spleen		Kidney-RL		Adrenal-RL	
		AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
hexaoxanon	n	11	11	11	11	11	11	11	11	11	11
0 mg/kg	Mean	1.03	0.32	10.64	3.30	0.71	0.22	2.24	0.70	74	23
	S.D.	0.06	0.02	0.68	0.14	0.06	0.02	0.18	0.05	8	2
hexaoxanon	n	11	11	11	11	11	11	11	11	11	11
100 mg/kg	Mean	1.00	0.31	10.92	3.40	0.70	0.22	2.29	0.71	76	24
	S.D.	0.08	0.02	0.81	0.18	0.08	0.02	0.19	0.05	13	3
hexaoxanon	n	12	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	1.01	0.32	10.44	3.26	0.67	0.21	2.29	0.72	73	23
	S.D.	0.10	0.02	0.69	0.12	0.13	0.04	0.19	0.05	9	3
hexaoxanon	n	10	10	10	10	10	10	10	10	10	10
1000 mg/kg	Mean	1.01	0.32	10.41	3.26	0.67	0.21	2.28	0.72	77	24
	S.D.	0.07	0.02	0.70	0.20	0.06	0.02	0.18	0.06	7	2

AB : Absolute weight, RE : Relative weight by body weight
Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		Ovary-RL AB mg	Ovary-RL RE mg/100g	Uterus AB mg	Uterus RE mg/100g
hexaoxanon	n	11	11	11	11
0 mg/kg	Mean	106.9	33.1	785	244
	S.D.	15.9	4.2	180	62
hexaoxanon	n	11	11	11	11
100 mg/kg	Mean	105.0	32.7	763	238
	S.D.	14.4	4.1	93	28
hexaoxanon	n	12	12	12	12
300 mg/kg	Mean	106.5	33.3	804	252
	S.D.	12.2	3.5	97	31
hexaoxanon	n	10	10	10	10
1000 mg/kg	Mean	106.0	33.2	792	248
	S.D.	10.0	3.3	126	35

AB : Absolute weight, RE : Relative weight by body weight
Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Female Species : Rat

Test article		Body weight	Brain		Pituitary		Thyroid-RL		Thymus	
			AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	301	1.95	0.65	16.0	5.3	15.6	5.2	248	83
	S.D.	9	0.10	0.04	1.6	0.5	1.4	0.6	65	24
hexaoxanon	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	279	2.03	0.73	14.3	5.1	12.9	4.6	256	92
	S.D.	17	0.09	0.06	2.0	0.8	4.4	1.6	69	25
		T2 *		T2 *						

Test article		Heart		Liver		Spleen		Kidney-RL		Adrenal-RL	
		AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	0.90	0.30	8.00	2.66	0.50	0.16	2.02	0.67	64	22
	S.D.	0.08	0.02	0.58	0.13	0.05	0.01	0.16	0.04	4	2
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	0.88	0.32	7.08	2.55	0.48	0.17	1.82	0.66	64	23
	S.D.	0.05	0.03	0.49	0.20	0.04	0.02	0.13	0.07	14	5
				T2 *							

Test article		Ovary-RL		Uterus	
		AB	RE	AB	RE
Dose		mg	mg/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	79.4	26.4	702	233
	S.D.	6.3	1.5	96	27
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	86.7	31.1	622	224
	S.D.	19.7	6.7	143	54

AB : Absolute weight, RE : Relative weight by body weight
Significantly different from hexaoxanon 0 mg/kg : * P<0.05
T2 : Student t-test (two-side)
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Male Species : Rat

Test article		Body weight	Brain		Pituitary		Thyroid-RL		Thymus	
			AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	509	2.23	0.44	13.0	2.5	24.3	4.8	232	45
	S.D.	26	0.06	0.02	1.2	0.2	3.3	0.9	88	17
hexaoxanon	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	509	2.13	0.42	12.7	2.5	21.3	4.2	294	57
	S.D.	21	0.08	0.02	1.8	0.3	3.2	0.6	46	8

Test article		Heart		Liver		Spleen		Kidney-RL		Adrenal-RL	
		AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	1.43	0.28	12.54	2.47	0.64	0.13	3.41	0.67	59	12
	S.D.	0.06	0.01	0.47	0.08	0.10	0.03	0.22	0.05	10	2
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	1.54	0.30	13.22	2.60	0.74	0.14	3.59	0.70	55	11
	S.D.	0.15	0.03	0.56	0.18	0.08	0.02	0.21	0.03	7	1

Test article		Testis-RL		Epididymis-RL		Prostate		Seminalvesicle	
		AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	mg	mg/100g	g	g/100g	g	g/100g
hexaoxanon	n	5	5	5	5	5	5	5	5
0 mg/kg	Mean	2.84	0.56	1258	248	1.13	0.22	1.73	0.34
	S.D.	0.91	0.19	316	63	0.23	0.05	0.07	0.02
hexaoxanon	n	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	3.23	0.63	1259	247	1.12	0.22	1.86	0.37
	S.D.	0.29	0.04	102	21	0.23	0.05	0.22	0.04

AB : Absolute weight, RE : Relative weight by body weight
Not significantly different from hexaoxanon 0 mg/kg
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 8 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Female Species : Rat

Test article		Body weight	Brain		Pituitary		Thyroid-RL		Thymus	
			AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	275	1.97	0.72	16.2	5.8	17.3	6.3	215	79
	S.D.	19	0.09	0.07	4.0	1.1	2.2	0.7	24	12
hexaoxanon	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	286	1.97	0.69	17.5	6.1	18.3	6.4	236	83
	S.D.	9	0.05	0.03	2.3	0.9	5.2	1.9	65	24

Test article		Heart		Liver		Spleen		Kidney-RL		Adrenal-RL	
		AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Dose		g	g/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	0.90	0.33	6.73	2.45	0.42	0.15	1.85	0.67	67	24
	S.D.	0.04	0.03	0.78	0.22	0.05	0.01	0.11	0.05	10	4
hexaoxanon	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	0.97	0.34	7.21	2.52	0.52	0.18	1.97	0.69	76	27
	S.D.	0.05	0.01	0.43	0.16	0.08	0.03	0.11	0.06	11	4
		T2 *				T2 *					

Test article		Ovary-RL		Uterus	
		AB	RE	AB	RE
Dose		mg	mg/100g	mg	mg/100g
hexaoxanon	n	5	5	5	5
0 mg/kg	Mean	78.2	28.9	654	239
	S.D.	22.8	9.6	151	61
hexaoxanon	n	5	5	5	5
1000 mg/kg	Mean	88.6	31.1	771	269
	S.D.	16.2	6.6	222	76

AB : Absolute weight, RE : Relative weight by body weight
Significantly different from hexaoxanon 0 mg/kg : * P<0.05
T2 : Student t-test (two-side)
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No. : R-1168

Table 9-1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (End of administration period (D42))

Species : Rat

Organs	Sex:	M	M	M	M
	Dose(mg/kg):	0	100	300	1000
Findings	Number:	7	12	12	7
Liver					
Focus,dark red		1	0	0	0
Pituitary					
Cyst		0	1	0	0
Stomach					
Focus,dark red glandular stomach		1	1	2	1

M : Male

Study No. : R-1168

Table 9-2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (End of administration period (D42))

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Stomach			
Focus,dark red glandular stomach		3	1

F : Female

Study No. : R-1168

Table 9-3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (End of administration period (L4))

Species : Rat

Organs	Sex:	F	F	F	F
	Dose(mg/kg):	0	100	300	1000
Findings	Number:	11	11	12	10
Stomach					
Focus,dark red glandular stomach		2	1	1	0

F : Female

Study No. : R-1168

Table 9-4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (End of recovery period)

Species : Rat

Organs	Sex:	M	M
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Testis			
Small		1	0

M : Male

Study No. : R-1168

Table 9-5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (End of recovery period)

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Stomach			
Focus,dark red glandular stomach		0	1

F : Female

Study No. : R-1168

Table 9-6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (Undelivered)

Species : Rat

Organs	Sex:	F	F	F
	Dose(mg/kg):	0	100	1000
Findings	Number:	1	1	1
All tissues				
Not remarkable		1	1	1

F : Female

Study No. : R-1168

Table 9-7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Gross pathological findings (All littermates died)

Species : Rat

Organs	Sex:	F
	Dose(mg/kg):	1000
Findings	Number:	1
All tissues		
Not remarkable		1

F : Female

Table 10-1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	M	M	M	M
	Dose(mg/kg):	0	100	300	1000
	Number:	7	12	12	7
Adrenal					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Bone+Bone marrow,femoral					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Cerebellum(pons)					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Cerebrum					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Epididymis					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Eye					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Heart					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Cell infiltration		0	0	0	1
minimal		0	0	0	1
Intestine,duodenum					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Intestine,jejunum					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Intestine,ileum(Peyer's patch)					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Intestine,cecum					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Intestine,colon					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Intestine,rectum					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Kidney					
Number examined		5	1	0	5
Not remarkable		4	1	0	4
Basophilia,tubular		1	0	0	1
minimal		1	0	0	1
Liver					
Number examined		5	1	0	5
Not remarkable		4	1	0	5

M : Male

Table 10-2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	M	M	M	M
	Dose(mg/kg):	0	100	300	1000
	Number:	7	12	12	7
Liver (continued)					
Angiectasis		1	0	0	0
minimal		1	0	0	0
Lung(bronchus)					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Lymph node,mesenteric					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Lymph node,submandibular					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Mammary gland,inguinal					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Pancreas					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Parathyroid					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Pituitary					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Cyst		0	0	0	1
minimal		0	0	0	1
Prostate					
Number examined		5	1	0	5
Not remarkable		1	0	0	2
Cell infiltration,interstitial		4	1	0	3
minimal		1	1	0	2
mild		3	0	0	1
Salivary gland,submandibular					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Sciatic nerve					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Seminal vesicle(coagulating gland)					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Skeletal muscle,femoral					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Spinal cord,thoracic					
Number examined		5	1	0	5
Not remarkable		5	1	0	5

M : Male

Table 10-3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	M	M	M	M
	Dose(mg/kg):	0	100	300	1000
	Number:	7	12	12	7
Spleen					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Stomach					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Erosion/Ulcer,glandular stomach		0	0	0	1
minimal		0	0	0	1
Testis					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Thymus					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Thyroid					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Cyst,ultimobranchial		0	0	0	1
minimal		0	0	0	1
Trachea					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Urinary bladder					
Number examined		5	1	0	5
Not remarkable		5	1	0	5

M : Male

Table 10-4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	1000
	Number:	5	5
Adrenal			
Number examined		5	5
Not remarkable		5	5
Bone+Bone marrow,femoral			
Number examined		5	5
Not remarkable		5	5
Cerebellum(pons)			
Number examined		5	5
Not remarkable		5	5
Cerebrum			
Number examined		5	5
Not remarkable		5	5
Eye			
Number examined		5	5
Not remarkable		4	5
Dysplasia,retinal		1	0
minimal		1	0
Heart			
Number examined		5	5
Not remarkable		5	5
Intestine,duodenum			
Number examined		5	5
Not remarkable		5	5
Intestine,jejunum			
Number examined		5	5
Not remarkable		5	5
Intestine,ileum(Peyer's patch)			
Number examined		5	5
Not remarkable		5	5
Intestine,cecum			
Number examined		5	5
Not remarkable		5	5
Intestine,colon			
Number examined		5	5
Not remarkable		5	5
Intestine,rectum			
Number examined		5	5
Not remarkable		5	5
Kidney			
Number examined		5	5
Not remarkable		4	5
Basophilia,tubular		1	0
minimal		1	0
Liver			
Number examined		5	5
Not remarkable		5	5
Lung(bronchus)			
Number examined		5	5
Not remarkable		5	5

F : Female

Table 10-5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	1000
	Number:	5	5
Lymph node,mesenteric			
Number examined		5	5
Not remarkable		5	5
Lymph node,submandibular			
Number examined		5	5
Not remarkable		5	5
Mammary gland,inguinal			
Number examined		5	5
Not remarkable		5	5
Ovary			
Number examined		5	5
Not remarkable		5	5
Pancreas			
Number examined		5	5
Not remarkable		5	5
Parathyroid			
Number examined		5	5
Not remarkable		5	5
Pituitary			
Number examined		5	5
Not remarkable		5	5
Salivary gland,submandibular			
Number examined		5	5
Not remarkable		5	5
Sciatic nerve			
Number examined		5	5
Not remarkable		5	5
Skeletal muscle,femoral			
Number examined		5	5
Not remarkable		5	5
Spinal cord,thoracic			
Number examined		5	5
Not remarkable		5	5
Spleen			
Number examined		5	5
Not remarkable		5	5
Stomach			
Number examined		5	5
Not remarkable		2	4
Erosion/Ulcer,glandular stomach		3	1
minimal		3	1
Thymus			
Number examined		5	5
Not remarkable		5	5
Thyroid			
Number examined		5	5
Not remarkable		5	5

F : Female

Study No. : R-1168

Table 10-6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Trachea			
Number examined		5	5
Not remarkable		5	5
Urinary bladder			
Number examined		5	5
Not remarkable		5	5
Uterus			
Number examined		5	5
Not remarkable		5	5
Vagina			
Number examined		5	5
Not remarkable		5	5

F : Female

Table 10-7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (L4))

Species : Rat

Organs / Findings	Sex:	F	F	F	F
	Dose(mg/kg):	0	100	300	1000
	Number:	11	11	12	10
Adrenal					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Bone+Bone marrow,femoral					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Cerebellum(pons)					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Cerebrum					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Eye					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Heart					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,duodenum					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,jejunum					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,ileum(Peyer's patch)					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,cecum					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,colon					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Intestine,rectum					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Kidney					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Liver					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Lung(bronchus)					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Lymph node,mesenteric					
Number examined		5	0	0	5
Not remarkable		5	0	0	5

F : Female

Table 10-8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (L4))

Species : Rat

Organs / Findings	Sex:	F	F	F	F
	Dose(mg/kg):	0	100	300	1000
	Number:	11	11	12	10
Lymph node,submandibular					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Mammary gland,inguinal					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Ovary					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Pancreas					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Parathyroid					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Pituitary					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Salivary gland,submandibular					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Sciatic nerve					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Skeletal muscle,femoral					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Spinal cord,thoracic					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Spleen					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Stomach					
Number examined		5	0	0	5
Not remarkable		4	0	0	5
Erosion/Ulcer,glandular stomach		1	0	0	0
minimal		1	0	0	0
Thymus					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Thyroid					
Number examined		5	0	0	5
Not remarkable		4	0	0	5
Cyst,ultimobranchial		1	0	0	0
minimal		1	0	0	0
Trachea					
Number examined		5	0	0	5
Not remarkable		5	0	0	5

F : Female

Table 10-9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of administration period (L4))

Species : Rat

Organs	Sex:	F	F	F	F
	Dose(mg/kg):	0	100	300	1000
Findings	Number:	11	11	12	10
Urinary bladder					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Uterus					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
Vagina					
Number examined		5	0	0	5
Not remarkable		5	0	0	5

F : Female

Table 10-10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of recovery period)

Species : Rat

Organs / Findings	Sex:	M	M
	Dose(mg/kg):	0	1000
	Number:	5	5
Adrenal			
Number examined		1	0
Not remarkable		1	0
Bone+Bone marrow,femoral			
Number examined		1	0
Not remarkable		1	0
Cerebellum(pons)			
Number examined		1	0
Not remarkable		1	0
Cerebrum			
Number examined		1	0
Not remarkable		1	0
Epididymis			
Number examined		1	0
Hypospermia		1	0
severe		1	0
Eye			
Number examined		1	0
Not remarkable		1	0
Heart			
Number examined		1	0
Not remarkable		1	0
Intestine,duodenum			
Number examined		1	0
Not remarkable		1	0
Intestine,jejunum			
Number examined		1	0
Not remarkable		1	0
Intestine,ileum(Peyer's patch)			
Number examined		1	0
Not remarkable		1	0
Intestine,cecum			
Number examined		1	0
Not remarkable		1	0
Intestine,colon			
Number examined		1	0
Not remarkable		1	0
Intestine,rectum			
Number examined		1	0
Not remarkable		1	0
Kidney			
Number examined		1	0
Not remarkable		1	0
Liver			
Number examined		1	0
Not remarkable		1	0

M : Male

Table 10-11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of recovery period)

Species : Rat

Organs / Findings	Sex:	M	M
	Dose(mg/kg):	0	1000
	Number:	5	5
Lung(bronchus)			
Number examined		1	0
Not remarkable		1	0
Lymph node,mesenteric			
Number examined		1	0
Not remarkable		1	0
Lymph node,submandibular			
Number examined		1	0
Not remarkable		1	0
Mammary gland,inguinal			
Number examined		1	0
Not remarkable		1	0
Pancreas			
Number examined		1	0
Not remarkable		1	0
Parathyroid			
Number examined		1	0
Not remarkable		1	0
Pituitary			
Number examined		1	0
Castration cell		1	0
mild		1	0
Prostate			
Number examined		1	0
Not remarkable		1	0
Salivary gland,submandibular			
Number examined		1	0
Not remarkable		1	0
Sciatic nerve			
Number examined		1	0
Not remarkable		1	0
Seminal vesicle(coagulating gland)			
Number examined		1	0
Not remarkable		1	0
Skeletal muscle,femoral			
Number examined		1	0
Not remarkable		1	0
Spinal cord,thoracic			
Number examined		1	0
Not remarkable		1	0
Spleen			
Number examined		1	0
Not remarkable		1	0
Stomach			
Number examined		1	0
Not remarkable		1	0

M : Male

Table 10-12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (End of recovery period)

Species : Rat

Organs / Findings	Sex:	M	M
	Dose(mg/kg):	0	1000
	Number:	5	5
Testis			
Number examined		1	0
Atrophy,seminiferous tubular		1	0
severe		1	0
Hyperplasia,Leydig cell,diffuse		1	0
minimal		1	0
Thymus			
Number examined		1	0
Not remarkable		1	0
Thyroid			
Number examined		1	0
Not remarkable		1	0
Trachea			
Number examined		1	0
Not remarkable		1	0
Urinary bladder			
Number examined		1	0
Not remarkable		1	0

M : Male

Table 10-13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (Undelivered)

Species : Rat

Organs / Sex:	F	F	F
Dose(mg/kg):	0	100	1000
Findings / Number:	1	1	1
Adrenal			
Number examined	1	1	1
Not remarkable	1	1	1
Bone+Bone marrow,femoral			
Number examined	1	1	1
Not remarkable	1	1	1
Cerebellum(pons)			
Number examined	1	1	1
Not remarkable	1	1	1
Cerebrum			
Number examined	1	1	1
Not remarkable	1	1	1
Eye			
Number examined	1	1	1
Not remarkable	0	1	1
Dysplasia,retinal	1	0	0
minimal	1	0	0
Heart			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,duodenum			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,jejunum			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,ileum(Peyer's patch)			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,cecum			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,colon			
Number examined	1	1	1
Not remarkable	1	1	1
Intestine,rectum			
Number examined	1	1	1
Not remarkable	1	1	1
Kidney			
Number examined	1	1	1
Not remarkable	1	1	1
Liver			
Number examined	1	1	1
Not remarkable	1	1	1
Lung(bronchus)			
Number examined	1	1	1
Not remarkable	1	1	1

F : Female

Table 10-14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (Undelivered)

Species : Rat

Organs / Sex:	F	F	F
Dose(mg/kg):	0	100	1000
Findings / Number:	1	1	1
Lymph node,mesenteric			
Number examined	1	1	1
Not remarkable	1	1	1
Lymph node,submandibular			
Number examined	1	1	1
Not remarkable	1	1	1
Mammary gland,inguinal			
Number examined	1	1	1
Not remarkable	1	1	0
Hyperplasia,lobular,diffuse	0	0	1
minimal	0	0	1
Ovary			
Number examined	1	1	1
Not remarkable	1	1	0
Hypertrophy,corpora lutea	0	0	1
minimal	0	0	1
Pancreas			
Number examined	1	1	1
Not remarkable	1	0	0
Atrophy,acinar,focal	0	1	0
minimal	0	1	0
Cell infiltration,focal	0	0	1
minimal	0	0	1
Parathyroid			
Number examined	1	1	1
Not remarkable	1	1	1
Pituitary			
Number examined	1	1	1
Not remarkable	1	1	1
Salivary gland,submandibular			
Number examined	1	1	1
Not remarkable	1	1	1
Sciatic nerve			
Number examined	1	1	1
Not remarkable	1	1	1
Skeletal muscle,femoral			
Number examined	1	1	1
Not remarkable	1	1	1
Spinal cord,thoracic			
Number examined	1	1	1
Not remarkable	1	1	1
Spleen			
Number examined	1	1	1
Not remarkable	1	1	1
Stomach			
Number examined	1	1	1
Not remarkable	1	1	1
Thymus			
Number examined	1	1	1
Not remarkable	1	1	1

F : Female

Table 10-15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (Undelivered)

Species : Rat

Organs	Sex:	F	F	F
	Dose(mg/kg):	0	100	1000
Findings	Number:	1	1	1
Thyroid				
Number examined		1	1	1
Not remarkable		1	1	1
Trachea				
Number examined		1	1	1
Not remarkable		1	1	1
Urinary bladder				
Number examined		1	1	1
Not remarkable		1	1	1
Uterus				
Number examined		1	1	1
Not remarkable		1	1	1
Vagina				
Number examined		1	1	1
Not remarkable		1	1	1

F : Female

Table 10-16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (All littermates died)

Species : Rat

Organs / Findings	Sex:	F
	Dose(mg/kg):	1000
	Number:	1
Adrenal		
Number examined		1
Not remarkable		1
Bone+Bone marrow,femoral		
Number examined		1
Not remarkable		1
Cerebellum(pons)		
Number examined		1
Not remarkable		1
Cerebrum		
Number examined		1
Not remarkable		1
Eye		
Number examined		1
Not remarkable		1
Heart		
Number examined		1
Not remarkable		1
Intestine,duodenum		
Number examined		1
Not remarkable		1
Intestine,jejunum		
Number examined		1
Not remarkable		1
Intestine,ileum(Peyer's patch)		
Number examined		1
Not remarkable		1
Intestine,cecum		
Number examined		1
Not remarkable		1
Intestine,colon		
Number examined		1
Not remarkable		1
Intestine,rectum		
Number examined		1
Not remarkable		1
Kidney		
Number examined		1
Not remarkable		1
Liver		
Number examined		1
Not remarkable		1
Lung(bronchus)		
Number examined		1
Not remarkable		1
Lymph node,mesenteric		
Number examined		1
Not remarkable		1

F : Female

Table 10-17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (All littermates died)

Species : Rat

Organs / Findings	Sex:	F
	Dose(mg/kg):	1000
	Number:	1
Lymph node,submandibular		
Number examined		1
Not remarkable		1
Mammary gland,inguinal		
Number examined		1
Not remarkable		1
Ovary		
Number examined		1
Not remarkable		1
Pancreas		
Number examined		1
Not remarkable		1
Parathyroid		
Number examined		1
Not remarkable		1
Pituitary		
Number examined		1
Not remarkable		1
Salivary gland,submandibular		
Number examined		1
Not remarkable		1
Sciatic nerve		
Number examined		1
Not remarkable		1
Skeletal muscle,femoral		
Number examined		1
Not remarkable		1
Spinal cord,thoracic		
Number examined		1
Not remarkable		1
Spleen		
Number examined		1
Not remarkable		1
Stomach		
Number examined		1
Not remarkable		1
Thymus		
Number examined		1
Atrophy		1
minimal		1
Thyroid		
Number examined		1
Not remarkable		1
Trachea		
Number examined		1
Not remarkable		1

F : Female

Table 10-18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
Histopathological findings (All littermates died)

Species : Rat

Organs	Sex:	F
	Dose(mg/kg):	1000
Findings	Number:	1
Urinary bladder		
Number examined		1
Not remarkable		1
Uterus		
Number examined		1
Not remarkable		1
Vagina		
Number examined		1
Not remarkable		1

F : Female

Table 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Estrus cycles

Generation : F0

Study No. : R-1168

Species : Rat

Test article Dose		/Before mating Mean estrous cycle (Days)	Number of estrus	Number of animals with abnormal estrous cycle	Abnormal estrous cycle index (%)
hexaoxanon 0 mg/kg	n	12	12	12 (0)	0.0
	Mean	4.3	3.5		
	S.D.	0.4	0.5		
hexaoxanon 100 mg/kg	n	12	12	12 (0)	0.0
	Mean	4.1	3.6		
	S.D.	0.3	0.5		
hexaoxanon 300 mg/kg	n	12	12	12 (1)	8.3
	Mean	4.5	3.5		
	S.D.	0.5	0.5		
hexaoxanon 1000 mg/kg	n	12	12	12 (0)	0.0
	Mean	4.3	3.6		
	S.D.	0.3	0.5		

() : Values in brackets represent number of animals with abnormal estrous cycle.

Abnormal estrous cycle index = (No. of animals with abnormal estrous cycle / No. of animals examined)×100

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 12 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Male Species : Rat

Test article Dose		Number of pairs	Elapsed day of conceiving	1st mating Copulation index (%) a)	1st mating Fertility index (%) b)
hexaoxanon	n	12	12	(12/12)	(11/12)
0 mg/kg	Mean		2.3	100.0	91.7
	S.D.		1.0		
hexaoxanon	n	12	11	(11/12)	(11/11)
100 mg/kg	Mean		2.7	91.7	100.0
	S.D.		1.4		
hexaoxanon	n	12	12	(12/12)	(12/12)
300 mg/kg	Mean		2.4	100.0	100.0
	S.D.		1.5		
hexaoxanon	n	12	12	(12/12)	(11/12)
1000 mg/kg	Mean		2.9	100.0	91.7
	S.D.		1.7		

Not significantly different from hexaoxanon 0 mg/kg

a): (Number of copulated animals / Number of mated animals)×100

b): (Number of males which impregnated females / Number of copulated males)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 12 - 2

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Reproductive performance

Study No. : R-1168

Generation : F0 Sex : Female Species : Rat

Test article Dose		Number of pairs	Elapsed day of conceiving	1st mating Copulation index (%) a)	1st mating Fertility index (%) b)
hexaoxanon 0 mg/kg	n	12	12	(12/12)	(11/12)
	Mean		2.3	100.0	91.7
	S.D.		1.0		
hexaoxanon 100 mg/kg	n	12	11	(11/12)	(11/11)
	Mean		2.7	91.7	100.0
	S.D.		1.4		
hexaoxanon 300 mg/kg	n	12	12	(12/12)	(12/12)
	Mean		2.4	100.0	100.0
	S.D.		1.5		
hexaoxanon 1000 mg/kg	n	12	12	(12/12)	(11/12)
	Mean		2.9	100.0	91.7
	S.D.		1.7		

Not significantly different from hexaoxanon 0 mg/kg

a): (Number of copulated animals / Number of mated animals)×100

b): (Number of pregnant females / Number of copulated females)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Delivery data

Generation : F0

Species : Rat

Test article Dose		Gestation period (day)	Gestation index (%) a)	Number of corpora lutea	Number of implan-tation	Preimplan-tation loss (%) b)	Implantation index (%) c)	Delivery index (%) d)	Live birth index (%) e)	Number of offspring	Number of live newborns M	F	Total	Sex ratio (%) live-borns f)	delivered pups g)	Number of dead newborns
hexaoxanon	n	11	11/11	11	11	11	11	11	11	11	11	11	11	72/165	72/167	11
0 mg/kg	Mean	22.2	100.0	16.5	16.2	1.6	98.4	93.9	98.8	15.2	6.5	8.5	15.0	43.6	43.1	0.2
	S.D.	0.4		0.7	0.9	3.9	3.9	5.1	2.6	0.9	1.6	1.7	0.9			0.4
hexaoxanon	n	11	11/11	11	11	11	11	11	11	11	11	11	11	83/168	87/174	11
100 mg/kg	Mean	22.2	100.0	17.3	16.5	4.2	95.9	95.8	96.6	15.8	7.5	7.7	15.3	49.4	50.0	0.5
	S.D.	0.3		1.3	1.5	5.7	5.6	5.1	5.1	1.3	2.0	2.4	1.5			0.8
			EF													
hexaoxanon	n	12	12/12	12	12	12	12	12	12	12	12	12	12	79/175	79/177	12
300 mg/kg	Mean	22.0	100.0	15.8	15.7	1.1	98.9	95.0	98.3	14.8	6.6	8.0	14.6	45.1	44.6	0.3
	S.D.	0.3		1.3	1.4	2.6	2.6	6.8	4.1	1.2	1.9	2.0	1.3			0.6
			EF													
hexaoxanon	n	11	11/11	11	11	11	11	11	11	11	11	11	11	65/147	74/159	11
1000 mg/kg	Mean	22.1	100.0	16.3	15.7	3.4	96.6	91.5	91.7	14.5	5.9	7.5	13.4	44.2	46.5	1.1
	S.D.	0.5		2.2	2.2	4.3	4.3	8.8	25.4	2.7	2.9	3.0	4.6			3.3
			EF													

M : Male, F : Female

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

a): (Number of females which delivered liveborns / Number of pregnant females)×100

b): [(Number of corpora lutea - Number of implantation) / Number of corpora lutea]×100

c): (Number of implantation / Number of corpora lutea)×100

d): (Number of delivered pups / Number of implantation)×100

e): (Number of live borns / Number of delivered pups)×100

f): (Number of liveborn males / Number of liveborns)×100

g): (Number of delivered males / Number of delivered pups)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 14 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

External examination of offspring

Days after birth : 0

Generation : F0

Species : Rat

Test article	hexaoxanon	hexaoxanon	hexaoxanon	hexaoxanon
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	11
Number of offspring	167	174	177	159
Number of offspring with any anomaly (incidence %)a)	0(0.0)	0(0.0) EF	0(0.0) EF	0(0.0) EF

Not significantly different from hexaoxanon 0 mg/kg

EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

a) : (Number of offspring with any anomaly / Number of offspring) x 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 14 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

External examination of offspring

Days after birth : 4

Generation : F0

Species : Rat

Test article	hexaoxanon	hexaoxanon	hexaoxanon	hexaoxanon
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	10
Number of offspring	162	162	174	143
Number of offspring with any anomaly	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0

Species : Rat

Test article Dose		Number of live offspring Day 0	Number of live offspring Day 4	Viability index (%)a)	Sex ratio (%)b)
hexaoxanon 0 mg/kg	n	11	11	11	71/162
	Mean	15.0	14.7	98.1	43.8
	S.D.	0.9	1.3	4.6	
hexaoxanon 100 mg/kg	n	11	11	11	79/162
	Mean	15.3	14.7	96.3	48.8
	S.D.	1.5	2.0	6.6	
hexaoxanon 300 mg/kg	n	12	12	12	79/174
	Mean	14.6	14.5	99.4	45.4
	S.D.	1.3	1.3	1.9	
hexaoxanon 1000 mg/kg	n	11	11	11	64/143
	Mean	13.4	13.0	89.7	44.8
	S.D.	4.6	5.1	29.9	

a) : (Number of live offspring on day 4 after birth / Number of live newborns) × 100

b) : (Number of live males on day 4 after birth / Number of live offspring on day 4 after birth) × 100

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 16 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight of offspring

Generation : F0 Unit : g Species : Rat

Test article Dose			/Days after birth 0	 4/Pre-culled
hexaoxanon 0 mg/kg	Male	n	11	11
		Mean	6.7	10.3
		S.D.	0.5	1.0
	Female	n	11	11
		Mean	6.3	9.7
		S.D.	0.4	0.7
hexaoxanon 100 mg/kg	Male	n	11	11
		Mean	6.5	10.2
		S.D.	0.3	1.2
	Female	n	11	11
		Mean	6.1	9.5
		S.D.	0.3	0.8
hexaoxanon 300 mg/kg	Male	n	12	12
		Mean	6.5	10.3
		S.D.	0.5	0.6
	Female	n	12	12
		Mean	6.1	9.8
		S.D.	0.4	0.6
hexaoxanon 1000 mg/kg	Male	n	10 a)	10
		Mean	6.6	10.2
		S.D.	0.6	1.5
	Female	n	11	10 b)
		Mean	6.2	9.7
		S.D.	0.4	1.2

Not significantly different from hexaoxanon 0 mg/kg

a): Male pups were not born in one dam.

b): One dam was sacrificed on day 1 of lactation because of all pups died.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 16 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight gain of offspring Base : Day 4 after birth

Generation : F0 Unit : g Species : Rat

Test article Dose			/Days after birth /Before culling 0-4
hexaoxanon 0 mg/kg	Male	n	11
		Mean	3.6
		S.D.	0.5
	Female	n	11
		Mean	3.4
		S.D.	0.5
hexaoxanon 100 mg/kg	Male	n	11
		Mean	3.8
		S.D.	1.0
	Female	n	11
		Mean	3.4
		S.D.	0.7
hexaoxanon 300 mg/kg	Male	n	12
		Mean	3.8
		S.D.	0.2
	Female	n	12
		Mean	3.7
		S.D.	0.4
hexaoxanon 1000 mg/kg	Male	n	10
		Mean	3.6
		S.D.	1.0
	Female	n	10
		Mean	3.5
		S.D.	0.9

Not significantly different from hexaoxanon 0 mg/kg

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Table 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats
External examination of dead offspring
Generation : F0

Study No. : R-1168

Species : Rat

Test article	hexaoxanon	hexaoxanon	hexaoxanon	hexaoxanon
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	11
Number of offspring	2	1	1	1
Number of offspring with any anomaly	0	0	0	0

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Study No.: R-1168

Appendix 1-1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
1001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
1001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
1001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
3001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
3001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
3001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
4001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
4001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4006	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4007	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4008	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4009	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4011	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4012	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
4001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
4101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
1106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d		
1111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
1112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.
Animal No. 1109 : Non-pregnancy

Study No.: R-1168

Appendix 1-18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
2103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
2112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.
Animal No. 2101 : Not copulated

Study No.: R-1168

Appendix 1-19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d		
3102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d		
3112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.

Study No.: R-1168

Appendix 1-20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
4101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d		
4103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d		
4107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
4111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
4112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.
Animal No. 4104 : Non-pregnancy

Appendix 1-21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
1101	-	-	-	-	-	-
1102	-	-	-	-	-	-
1103	-	-	-	-	-	-
1104	-	-	-	-	-	-
1105	-	-	-	-	-	-
1106	-	-	-	-	-	-
1107	-	-	-	-	-	-
1108	-	-	-	-	-	-
1110	-	-	-	-	-	-
1111	-	-	-	-	-	-
1112	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings
Animal No. 1109 : Non-pregnancy

Study No.: R-1168

Appendix 1-22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
2102	-	-	-	-	-	-
2103	-	-	-	-	-	-
2104	-	-	-	-	-	-
2105	-	-	-	-	-	-
2106	-	-	-	-	-	-
2107	-	-	-	-	-	-
2108	-	-	-	-	-	-
2109	-	-	-	-	-	-
2110	-	-	-	-	-	-
2111	-	-	-	-	-	-
2112	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings
Animal No. 2101 : Not copulated

Study No.: R-1168

Appendix 1-23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
3101	-	-	-	-	-	-
3102	-	-	-	-	-	-
3103	-	-	-	-	-	-
3104	-	-	-	-	-	-
3105	-	-	-	-	-	-
3106	-	-	-	-	-	-
3107	-	-	-	-	-	-
3108	-	-	-	-	-	-
3109	-	-	-	-	-	-
3110	-	-	-	-	-	-
3111	-	-	-	-	-	-
3112	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings

Study No.: R-1168

Appendix 1-24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
4101	-	-	-	-	-	-
4102	-	-	-	-	-	-
4103	-	-	-	-	-	-
4105	-	-	-	-	-	-
4106	-	-	-	-	-	-
4107	-	-	-	-	-	-
4108	-	-	-	-	-	-
4109	-	-				
4110	-	-	-	-	-	-
4111	-	-	-	-	-	-
4112	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings
Animal No. 4104 : Non-pregnancy
Animal No. 4109 : Necropsied on lactation day 1 because all offspring died

Study No.: R-1168

Appendix 1-25 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5104	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5105	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5107	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5108	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5109	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5110	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-26 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5104	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5105	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5107	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5108	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5109	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5110	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-27 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
5101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-28 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14
6101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6104	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6105	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6107	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6108	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6109	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6110	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-29 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 15	16	17	18	19	20	21	22	23	24	25	26	27	28
6101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6102	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6103	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6104	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6105	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6106	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6107	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6108	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6109	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6110	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

- : No abnormal findings

Study No.: R-1168

Appendix 1-30 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 29	30	31	32	33	34	35	36	37	38	39	40	41	42	43a)
6101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

a) : Day of necropsy

- : No abnormal findings

Study No.: R-1168

Appendix 1-31 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
1008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings

Study No.: R-1168

Appendix 1-32 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
4008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings

Study No.: R-1168

Appendix 1-33 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
5106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings

Study No.: R-1168

Appendix 1-34 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Clinical signs Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Day 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15a)
6106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol
a) : Day of necropsy
- : No abnormal findings

Appendix 2 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1001	N	0	0
1002	N	0	0
1003	N	0	0
1004	N	0	0
1005	N	0	0
1006	N	0	0
1007	N	0	0
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2001	N	0	0
2002	N	0	0
2003	N	0	0
2004	N	0	0
2005	N	0	0
2006	N	0	0
2007	N	0	0
2008	N	0	0
2009	N	0	0
2010	N	0	0
2011	N	0	0
2012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3001	N	0	0
3002	N	0	0
3003	N	0	0
3004	N	0	0
3005	N	0	0
3006	N	0	0
3007	N	0	0
3008	N	0	0
3009	N	0	0
3010	N	0	0
3011	N	0	0
3012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4001	N	0	0
4002	N	0	0
4003	N	0	0
4004	N	0	0
4005	N	0	0
4006	N	0	0
4007	N	0	0
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 25 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1109	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 26 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2101	N	0	0
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 27 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 28 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4104	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 29 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1109	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 30 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2101	N	0	0
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 31 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 32 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4104	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 33 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 34 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 35 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 36 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 37 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 38 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 39 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 40 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 41 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 42 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 43 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 44 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 45 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 46 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 47 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 48 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4109	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 49 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1101	N	0	0
1102	N	0	0
1103	N	0	0
1104	N	0	0
1105	N	0	0
1106	N	0	0
1107	N	0	0
1108	N	0	0
1110	N	0	0
1111	N	0	0
1112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 50 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
2102	N	0	0
2103	N	0	0
2104	N	0	0
2105	N	0	0
2106	N	0	0
2107	N	0	0
2108	N	0	0
2109	N	0	0
2110	N	0	0
2111	N	0	0
2112	N	0	0
n	11	11	11

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 51 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
3101	N	0	0
3102	N	0	0
3103	N	0	0
3104	N	0	0
3105	N	0	0
3106	N	0	0
3107	N	0	0
3108	N	0	0
3109	N	0	0
3110	N	0	0
3111	N	0	0
3112	N	0	0
n	12	12	12

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 52 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4101	N	0	0
4102	N	0	0
4103	N	0	0
4105	N	0	0
4106	N	0	0
4107	N	0	0
4108	N	0	0
4110	N	0	0
4111	N	0	0
4112	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Animal No.4104:Non-pregnancy
Animal No.4109:Necropsied on lactation day 1 because all pups died
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 53 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 54 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 55 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 56 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 57 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 58 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 59 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 60 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 61 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 62 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 63 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5101	N	0	0
5102	N	0	0
5103	N	0	0
5104	N	0	0
5105	N	0	0
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 64 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6101	N	0	0
6102	N	0	0
6103	N	0	0
6104	N	0	0
6105	N	0	0
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	10	10	10

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 65 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 66 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 67 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
1008	N	0	0
1009	N	0	0
1010	N	0	0
1011	N	0	0
1012	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 68 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
4008	N	0	0
4009	N	0	0
4010	N	0	0
4011	N	0	0
4012	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 69 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 71 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
5106	N	0	0
5107	N	0	0
5108	N	0	0
5109	N	0	0
5110	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Posture	Convulsion	Abnormal behavior
6106	N	0	0
6107	N	0	0
6108	N	0	0
6109	N	0	0
6110	N	0	0
n	5	5	5

Posture) N: Normal, F: Flattened, H: Hunched
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	1	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	0	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	1	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	1	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	0	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	1	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	0	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	0	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	0	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	0	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	0	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 3 Period : F0 mating Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	0	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	0	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	0	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	1	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 3 Period : F0 mating Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	0	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 3 Period : F0 mating Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	1	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	0	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	0	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	0	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 4 Period : F0 mating Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	1	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	0	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 4 Period : F0 mating Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	0	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	0	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	0	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	0	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	1	1
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 5 Period : F0 mating Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	0	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 5 Period : F0 mating Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	0	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1001	0	0	0	0	0	0	0	0
1002	0	0	0	0	0	0	0	0
1003	0	0	0	0	0	0	0	0
1004	0	0	0	0	0	0	0	0
1005	0	0	0	0	0	0	0	0
1006	0	0	0	0	0	0	0	0
1007	0	0	0	0	0	0	0	0
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1001	0	0	0	0	0	0
1002	0	0	0	0	1	0
1003	0	0	0	0	0	0
1004	0	0	0	0	0	0
1005	0	0	0	0	0	0
1006	0	0	0	0	0	0
1007	0	0	0	0	0	0
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0
2011	0	0	0	0	0	0
2012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3001	0	0	0	0	0	0	0	0
3002	0	0	0	0	0	0	0	0
3003	0	0	0	0	0	0	0	0
3004	0	0	0	0	0	0	0	0
3005	0	0	0	0	0	0	0	0
3006	0	0	0	0	0	0	0	0
3007	0	0	0	0	0	0	0	0
3008	0	0	0	0	0	0	0	0
3009	0	0	0	0	0	0	0	0
3010	0	0	0	0	0	0	0	0
3011	0	0	0	0	0	0	0	0
3012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3001	0	0	0	0	0	0
3002	0	0	0	0	0	0
3003	0	0	0	0	0	0
3004	0	0	0	0	0	0
3005	0	0	0	0	0	0
3006	0	0	0	0	0	0
3007	0	0	0	0	0	0
3008	0	0	0	0	0	0
3009	0	0	0	0	0	0
3010	0	0	0	0	0	0
3011	0	0	0	0	0	0
3012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4001	0	0	0	0	0	0	0	0
4002	0	0	0	0	0	0	0	0
4003	0	0	0	0	0	0	0	0
4004	0	0	0	0	0	0	0	0
4005	0	0	0	0	0	0	0	0
4006	0	0	0	0	0	0	0	0
4007	0	0	0	0	0	0	0	0
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4001	0	0	0	0	0	0
4002	0	0	0	0	0	0
4003	0	0	0	0	0	0
4004	0	0	0	0	0	0
4005	0	0	0	0	0	0
4006	0	0	0	0	0	0
4007	0	0	0	0	0	0
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1109	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1109	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2101	0	0	0	0	0	0	0	0
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2101	0	0	0	0	0	0
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	1	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	1	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 100 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4104	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4104	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1109	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1109	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2101	0	0	0	0	0	0	0	0
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2101	0	0	0	0	0	0
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4104	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4104	0	0	0	0	1	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 108 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 111 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 112 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 113 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 114 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Day : 14 Period : F0 gestation Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 118 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 120 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4109	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4109	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1101	0	0	0	0	0	0	0	0
1102	0	0	0	0	0	0	0	0
1103	0	0	0	0	0	0	0	0
1104	0	0	0	0	0	0	0	0
1105	0	0	0	0	0	0	0	0
1106	0	0	0	0	0	0	0	0
1107	0	0	0	0	0	0	0	0
1108	0	0	0	0	0	0	0	0
1110	0	0	0	0	0	0	0	0
1111	0	0	0	0	0	0	0	0
1112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1101	0	0	0	0	0	0
1102	0	0	0	0	0	0
1103	0	0	0	0	0	0
1104	0	0	0	0	0	0
1105	0	0	0	0	0	0
1106	0	0	0	0	0	0
1107	0	0	0	0	0	0
1108	0	0	0	0	0	0
1110	0	0	0	0	0	0
1111	0	0	0	0	0	0
1112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
2102	0	0	0	0	0	0	0	0
2103	0	0	0	0	0	0	0	0
2104	0	0	0	0	0	0	0	0
2105	0	0	0	0	0	0	0	0
2106	0	0	0	0	0	0	0	0
2107	0	0	0	0	0	0	0	0
2108	0	0	0	0	0	0	0	0
2109	0	0	0	0	0	0	0	0
2110	0	0	0	0	0	0	0	0
2111	0	0	0	0	0	0	0	0
2112	0	0	0	0	0	0	0	0
n	11	11	11	11	11	11	11	11

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
2102	0	0	0	0	0	0
2103	0	0	0	0	0	0
2104	0	0	0	0	0	0
2105	0	0	0	0	0	0
2106	0	0	0	0	0	0
2107	0	0	0	0	0	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	0	0	0	0	0	0
2111	0	0	0	0	0	0
2112	0	0	0	0	0	0
n	11	11	11	11	11	11

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 123 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
3101	0	0	0	0	0	0	0	0
3102	0	0	0	0	0	0	0	0
3103	0	0	0	0	0	0	0	0
3104	0	0	0	0	0	0	0	0
3105	0	0	0	0	0	0	0	0
3106	0	0	0	0	0	0	0	0
3107	0	0	0	0	0	0	0	0
3108	0	0	0	0	0	0	0	0
3109	0	0	0	0	0	0	0	0
3110	0	0	0	0	0	0	0	0
3111	0	0	0	0	0	0	0	0
3112	0	0	0	0	0	0	0	0
n	12	12	12	12	12	12	12	12

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
3101	0	0	0	0	0	0
3102	0	0	0	0	0	0
3103	0	0	0	0	0	0
3104	0	0	0	0	0	0
3105	0	0	0	0	0	0
3106	0	0	0	0	0	0
3107	0	0	0	0	0	0
3108	0	0	0	0	0	0
3109	0	0	0	0	0	0
3110	0	0	0	0	0	0
3111	0	0	0	0	0	0
3112	0	0	0	0	0	0
n	12	12	12	12	12	12

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4101	0	0	0	0	0	0	0	0
4102	0	0	0	0	0	0	0	0
4103	0	0	0	0	0	0	0	0
4105	0	0	0	0	0	0	0	0
4106	0	0	0	0	0	0	0	0
4107	0	0	0	0	0	0	0	0
4108	0	0	0	0	0	0	0	0
4110	0	0	0	0	0	0	0	0
4111	0	0	0	0	0	0	0	0
4112	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4101	0	0	0	0	0	0
4102	0	0	0	0	0	0
4103	0	0	0	0	0	0
4105	0	0	0	0	0	0
4106	0	0	0	0	0	0
4107	0	0	0	0	0	0
4108	0	0	0	0	0	0
4110	0	0	0	0	0	0
4111	0	0	0	0	0	0
4112	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
Animal No.4104:Non-pregnancy
Animal No.4109:Necropsied on lactation day 1 because all pups died
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 1 Period : Administration Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	0	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 1 Period : Administration Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 2 Period : Administration Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	1	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 128 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 3 Period : Administration Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	0	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 3 Period : Administration Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 4 Period : Administration Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	0	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation
Period : Administration
Generation : F0 Sex : Female Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	0	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation
Generation : F0 Sex : Female Week : 5 Period : Administration
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 6 Period :Administration Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5101	0	0	0	0	0	0	0	0
5102	0	0	0	0	0	0	0	0
5103	0	0	0	0	0	0	0	0
5104	0	0	0	0	0	0	0	0
5105	0	0	0	0	0	0	0	0
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5101	0	0	0	0	0	0
5102	0	0	0	0	0	0
5103	0	0	0	0	0	0
5104	0	0	0	0	0	0
5105	0	0	0	0	0	0
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	1	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6101	0	0	0	0	0	0	0	0
6102	0	0	0	0	0	0	0	0
6103	0	0	0	0	0	0	0	0
6104	0	0	0	0	0	0	0	0
6105	0	0	0	0	0	0	0	0
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	10	10	10	10	10	10	10	10

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6101	0	0	0	0	0	0
6102	0	0	0	0	0	0
6103	0	0	0	0	0	0
6104	0	0	0	0	0	0
6105	0	0	0	0	0	0
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	10	10	10	10	10	10

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 1 Period : Recovery Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1008	0	0	0	0	0	0	0	0
1009	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 1 Period : Recovery Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 2 Period : Recovery Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
1008	0	0	0	0	0	0	0	0
1009	1	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0
1012	1	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
1008	0	0	0	0	0	0
1009	0	0	0	0	0	0
1010	0	0	0	0	0	0
1011	0	0	0	0	0	0
1012	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 2 Period : Recovery Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of removal from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
4008	0	0	0	0	0	0	0	0
4009	0	0	0	0	0	0	0	0
4010	0	0	0	0	0	0	0	0
4011	0	0	0	0	0	0	0	0
4012	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
4008	0	0	0	0	0	0
4009	0	0	0	0	0	0
4010	0	0	0	0	0	0
4011	0	0	0	0	0	0
4012	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 141 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

In-the-hand observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 1 Period : Recovery Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 2 Period : Recovery Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
5106	0	0	0	0	0	0	0	0
5107	0	0	0	0	0	0	0	0
5108	0	0	0	0	0	0	0	0
5109	0	0	0	0	0	0	0	0
5110	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
5106	0	0	0	0	0	0
5107	0	0	0	0	0	0
5108	0	0	0	0	0	0
5109	0	0	0	0	0	0
5110	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 2 Period : Recovery Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Ease of remov-al from cage	Fur condition	Skin	Secretions-Eye, Nose	Exophthalmos	Palpebral closure	Mucosal membranes	Lacrimation
6106	0	0	0	0	0	0	0	0
6107	0	0	0	0	0	0	0	0
6108	0	0	0	0	0	0	0	0
6109	0	0	0	0	0	0	0	0
6110	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5

Animal No.	Piloerection	Pupil size	Salivation	Abnormal respiration	Vocalization	Reactivity to handling
6106	0	0	0	0	0	0
6107	0	0	0	0	0	0
6108	0	0	0	0	0	0
6109	0	0	0	0	0	0
6110	0	0	0	0	0	0
n	5	5	5	5	5	5

Ease of removal from cage) -1: Atypically docile, 0: Easy, 1: Some resistance/avoidance, 2: Difficult, 3: Very difficult
Fur condition) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Skin) 0: Nomal, 1: Slight, 2: Moderate, 3: Severe
Secretions-Eye, Nose) 0: Absent, 1: Present
Exophthalmos) 0: Absent, 1: Present
Palpebral closure) 0: Nomal, 1: Slightly closed, 2: Half closed, 3: Completely closed
Mucosal membranes) 0: Nomal, 1: Slight, 2: Moderate, 3: Marked
Lacrimation) 0: Absent, 1: Present
Piloerection) 0: Absent, 1: Present
Pupil size) -1: Miosis, 0: Nomal, 1: Half opened pupil, 2: Mydriasis
Salivation) 0: None, 1: Slight, 2: Moderate, 3: Marked
Abnormal respiration) 0: None, 1: Slight, 2: Moderate, 3: Severe
Vocalization) 0: None, 1: Soft, 2: Moderate, 3: Loud/aggressive
Reactivity to handling) -1: Atypically docile, 0: Easy, 1: Slightly awkward, 2: Awkward, 3: Very Awkward
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 145 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	0
1003	0	0	0	0	0	N	0	0
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	0
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	3	0
1002	1	0
1003	2	4
1004	6	0
1005	7	0
1006	5	0
1007	6	0
1008	5	0
1009	2	0
1010	1	0
1011	2	0
1012	3	0
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 147 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	1
2004	0	0	0	0	0	N	0	0
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	0
2009	0	0	0	0	0	N	0	0
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	1
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 148 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	5	0
2002	1	0
2003	7	0
2004	7	0
2005	5	2
2006	6	0
2007	2	0
2008	3	0
2009	5	0
2010	4	0
2011	3	0
2012	2	2
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 149 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	0
3002	0	0	0	0	0	N	0	1
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	0
3006	0	0	0	0	0	N	0	0
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	0
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 150 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	7	0
3002	5	0
3003	5	0
3004	5	0
3005	0	0
3006	5	0
3007	6	0
3008	1	2
3009	0	0
3010	4	0
3011	3	0
3012	3	1
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 151 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	1
4002	0	0	0	0	0	N	0	0
4003	0	0	0	0	0	N	0	1
4004	0	0	0	0	0	N	0	0
4005	0	0	0	0	0	N	0	1
4006	0	0	0	0	0	N	0	1
4007	0	0	0	0	0	N	0	0
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	1
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	0	0
4002	1	0
4003	3	0
4004	1	3
4005	1	2
4006	3	1
4007	3	0
4008	6	0
4009	6	0
4010	4	0
4011	5	0
4012	5	0
n	12	12
Mean	3	1
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 153 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	1
1003	0	0	0	0	U	N	0	0
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	0
1011	0	0	0	0	0	N	0	1
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	3	0
1002	2	0
1003	0	0
1004	7	0
1005	3	0
1006	5	0
1007	3	0
1008	2	0
1009	5	0
1010	6	0
1011	0	0
1012	2	0
n	12	12
Mean	3	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 155 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	1
2004	0	0	0	0	0	N	0	1
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	1
2009	0	0	0	0	0	N	0	1
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	3	0
2002	2	0
2003	6	0
2004	7	0
2005	5	0
2006	7	0
2007	5	0
2008	4	0
2009	4	0
2010	4	0
2011	4	0
2012	5	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 157 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	0
3002	0	0	0	0	0	N	0	0
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	0
3006	0	0	0	0	0	N	0	1
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	0
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	6	0
3002	3	0
3003	5	0
3004	6	0
3005	0	0
3006	3	0
3007	3	0
3008	5	0
3009	4	0
3010	3	0
3011	3	0
3012	1	2
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 159 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	1
4002	0	0	0	0	0	N	0	0
4003	0	0	0	0	0	N	0	0
4004	0	0	0	0	0	N	0	0
4005	0	0	0	0	0	N	0	1
4006	0	0	0	0	0	N	0	0
4007	0	0	0	0	0	N	0	1
4008	0	0	0	0	0	N	0	1
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	1
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	5	0
4002	4	0
4003	7	0
4004	1	0
4005	1	1
4006	5	0
4007	5	0
4008	1	2
4009	7	0
4010	3	0
4011	5	0
4012	3	2
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 161 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	0
1003	0	0	0	0	U	N	0	1
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	1
1010	0	0	0	0	0	N	0	0
1011	0	0	0	0	0	N	0	1
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	6	0
1002	2	0
1003	0	5
1004	7	0
1005	9	0
1006	6	0
1007	9	0
1008	7	0
1009	4	0
1010	5	1
1011	2	0
1012	3	0
n	12	12
Mean	5	1
S.D.	3	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 163 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	0
2004	0	0	0	0	0	N	0	0
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	0
2009	0	0	0	0	0	N	0	0
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	2	0
2002	6	0
2003	6	0
2004	7	0
2005	4	2
2006	3	0
2007	4	0
2008	3	0
2009	5	0
2010	5	0
2011	3	0
2012	7	0
n	12	12
Mean	5	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 165 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	0
3002	0	0	0	0	0	N	0	0
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	1
3006	0	0	0	0	0	N	0	0
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	1
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation | Period : F0 mating

Generation : F0 | Sex : Male | Week : 3 | Dose : hexaoxanon 300 mg/kg | Species : Rat

Animal No.	Rearing	Defecation count
3001	7	0
3002	4	0
3003	5	0
3004	5	0
3005	9	0
3006	6	0
3007	3	0
3008	5	0
3009	6	0
3010	1	0
3011	6	0
3012	4	0
n	12	12
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 mating

Generation : F0 — Sex : Male — Week : 3 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	1
4002	0	0	0	0	0	N	0	0
4003	0	0	0	0	0	N	0	0
4004	0	0	0	0	0	N	0	0
4005	0	0	0	0	0	N	0	0
4006	0	0	0	0	0	N	0	0
4007	0	0	0	0	0	N	0	0
4008	0	0	0	0	0	N	0	1
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation | Period : F0 mating

Generation : F0 | Sex : Male | Week : 3 | Dose : hexaoxanon 1000 mg/kg | Species : Rat

Animal No.	Rearing	Defecation count
4001	7	0
4002	5	0
4003	4	0
4004	5	2
4005	4	0
4006	5	0
4007	6	0
4008	3	0
4009	9	0
4010	5	0
4011	5	0
4012	5	0
n	12	12
Mean	5	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 169 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	0
1003	0	0	0	0	0	N	0	0
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	1
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	5	0
1002	2	0
1003	1	2
1004	2	0
1005	4	0
1006	4	0
1007	7	0
1008	3	0
1009	7	0
1010	5	0
1011	3	0
1012	3	0
n	12	12
Mean	4	0
S.D.	2	1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 171 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	0
2004	0	0	0	0	0	N	0	0
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	0
2009	0	0	0	0	0	N	0	0
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	4	0
2002	5	0
2003	2	0
2004	6	0
2005	6	0
2006	4	0
2007	5	0
2008	3	0
2009	7	0
2010	5	0
2011	3	1
2012	7	0
n	12	12
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 173 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	1
3002	0	0	0	0	0	N	0	1
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	0
3006	0	0	0	0	0	N	0	1
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	1
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	5	0
3002	6	0
3003	5	0
3004	5	0
3005	7	0
3006	3	0
3007	4	0
3008	7	0
3009	6	0
3010	4	0
3011	3	0
3012	6	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 175 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	1
4002	0	0	0	0	0	N	0	1
4003	0	0	0	0	0	N	0	1
4004	0	0	0	0	0	N	0	0
4005	0	0	0	0	0	N	0	1
4006	0	0	0	0	0	N	0	0
4007	0	0	0	0	0	N	0	0
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	1
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	1
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 mating

Generation : F0 — Sex : Male — Week : 4 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Rearing	Defecation count
4001	3	0
4002	4	0
4003	9	0
4004	8	0
4005	3	0
4006	5	0
4007	6	0
4008	6	0
4009	2	0
4010	5	0
4011	6	0
4012	5	0
n	12	12
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 177 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	0
1003	0	0	0	0	0	N	0	0
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	0
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	3	0
1002	3	0
1003	4	0
1004	4	0
1005	7	0
1006	7	0
1007	2	0
1008	4	0
1009	3	0
1010	2	0
1011	2	0
1012	3	0
n	12	12
Mean	4	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 179 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	1
2004	0	0	0	0	0	N	0	0
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	0
2009	0	0	0	0	0	N	0	0
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation | Period : F0 mating

Generation : F0 | Sex : Male | Week : 5 | Dose : hexaoxanon 100 mg/kg | Species : Rat

Animal No.	Rearing	Defecation count
2001	5	0
2002	3	0
2003	5	0
2004	4	0
2005	4	0
2006	4	0
2007	4	0
2008	6	0
2009	7	0
2010	6	0
2011	5	0
2012	4	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 181 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	1
3002	0	0	0	0	0	N	0	1
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	0
3006	0	0	0	0	0	N	0	0
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	0
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	6	0
3002	6	0
3003	5	0
3004	6	0
3005	2	0
3006	5	0
3007	3	0
3008	3	0
3009	4	0
3010	4	0
3011	4	0
3012	5	0
n	12	12
Mean	4	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 183 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	0
4002	0	0	0	0	0	N	0	1
4003	0	0	0	0	0	N	0	1
4004	0	0	0	0	0	N	0	1
4005	0	0	0	0	0	N	0	0
4006	0	0	0	0	0	N	0	0
4007	0	0	0	0	0	N	0	0
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	1
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	1
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation | Period : F0 mating

Generation : F0 | Sex : Male | Week : 5 | Dose : hexaoxanon 1000 mg/kg | Species : Rat

Animal No.	Rearing	Defecation count
4001	3	0
4002	4	0
4003	6	0
4004	8	0
4005	3	0
4006	5	0
4007	3	0
4008	1	0
4009	6	0
4010	1	0
4011	4	0
4012	4	0
n	12	12
Mean	4	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 185 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	0
1002	0	0	0	0	0	N	0	0
1003	0	0	0	0	0	N	0	0
1004	0	0	0	0	0	N	0	0
1005	0	0	0	0	0	N	0	0
1006	0	0	0	0	0	N	0	0
1007	0	0	0	0	0	N	0	0
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	0
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 mating

Generation : F0 — Sex : Male — Week : 6 — Dose : hexaoxanon 0 mg/kg — Species : Rat

Animal No.	Rearing	Defecation count
1001	6	0
1002	4	0
1003	3	0
1004	6	0
1005	7	0
1006	4	0
1007	3	0
1008	4	0
1009	5	0
1010	4	0
1011	4	0
1012	4	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 mating

Generation : F0 — Sex : Male — Week : 6 — Dose : hexaoxanon 100 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2001	0	0	0	0	0	N	0	0
2002	0	0	0	0	0	N	0	0
2003	0	0	0	0	0	N	0	1
2004	0	0	0	0	0	N	0	0
2005	0	0	0	0	0	N	0	0
2006	0	0	0	0	0	N	0	0
2007	0	0	0	0	0	N	0	0
2008	0	0	0	0	0	N	0	0
2009	0	0	0	0	0	N	0	0
2010	0	0	0	0	0	N	0	0
2011	0	0	0	0	0	N	0	0
2012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	6	0
2002	5	0
2003	5	0
2004	4	0
2005	4	0
2006	4	0
2007	5	0
2008	3	0
2009	3	0
2010	5	0
2011	4	0
2012	6	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 mating

Generation : F0 — Sex : Male — Week : 6 — Dose : hexaoxanon 300 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3001	0	0	0	0	0	N	0	0
3002	0	0	0	0	0	N	0	0
3003	0	0	0	0	0	N	0	0
3004	0	0	0	0	0	N	0	0
3005	0	0	0	0	0	N	0	0
3006	0	0	0	0	0	N	0	0
3007	0	0	0	0	0	N	0	0
3008	0	0	0	0	0	N	0	0
3009	0	0	0	0	0	N	0	0
3010	0	0	0	0	0	N	0	0
3011	0	0	0	0	0	N	0	0
3012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	5	0
3002	6	0
3003	6	0
3004	3	0
3005	4	0
3006	5	0
3007	6	0
3008	3	0
3009	5	0
3010	5	0
3011	5	0
3012	6	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 191 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4001	0	0	0	0	0	N	0	1
4002	0	0	0	0	0	N	0	1
4003	0	0	0	0	0	N	0	1
4004	0	0	0	0	0	N	0	1
4005	0	0	0	0	0	N	0	0
4006	0	0	0	0	0	N	0	0
4007	0	0	0	0	0	N	0	0
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	1
4012	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation | Period : F0 mating

Generation : F0 | Sex : Male | Week : 6 | Dose : hexaoxanon 1000 mg/kg | Species : Rat

Animal No.	Rearing	Defecation count
4001	5	0
4002	4	0
4003	7	0
4004	4	0
4005	3	0
4006	6	0
4007	3	0
4008	3	0
4009	2	0
4010	4	0
4011	7	0
4012	2	0
n	12	12
Mean	4	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 193 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1109	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	8	0
1102	8	0
1103	5	0
1104	10	0
1105	4	0
1106	6	0
1107	7	0
1108	5	0
1109	4	0
1110	8	0
1111	6	0
1112	5	0
n	12	12
Mean	6	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 before mating

Generation : F0 — Sex : Female — Week : 1 — Dose : hexaoxanon 100 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2101	0	0	0	0	0	N	0	0
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	1
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	1
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	5	0
2102	6	0
2103	6	0
2104	7	0
2105	6	0
2106	5	0
2107	10	0
2108	6	0
2109	7	0
2110	9	0
2111	4	0
2112	6	0
n	12	12
Mean	6	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 197 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	1
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	0
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	7	0
3102	8	0
3103	8	0
3104	5	0
3105	8	0
3106	8	0
3107	7	0
3108	7	0
3109	9	0
3110	6	0
3111	6	0
3112	10	0
n	12	12
Mean	7	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : F0 before mating

Generation : F0 — Sex : Female — Week : 1 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4104	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	1
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	6	0
4102	10	0
4103	14	0
4104	10	0
4105	2	0
4106	8	0
4107	8	0
4108	8	0
4109	6	0
4110	8	0
4111	12	0
4112	5	0
n	12	12
Mean	8	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 201 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	1
1109	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	1
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	10	0
1102	7	0
1103	6	0
1104	8	0
1105	4	0
1106	6	0
1107	8	0
1108	6	0
1109	6	0
1110	11	0
1111	6	0
1112	6	0
n	12	12
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 203 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2101	0	0	0	0	0	N	0	0
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	6	0
2102	6	0
2103	8	0
2104	5	0
2105	6	0
2106	6	0
2107	11	0
2108	6	0
2109	8	0
2110	9	0
2111	5	0
2112	9	0
n	12	12
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 205 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	1
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	1
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	7	0
3102	7	0
3103	9	0
3104	3	0
3105	10	0
3106	6	0
3107	6	0
3108	7	0
3109	8	0
3110	10	0
3111	6	0
3112	12	0
n	12	12
Mean	8	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	1
4104	0	0	0	0	0	N	0	1
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	1
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	8	0
4102	9	0
4103	9	0
4104	2	0
4105	3	0
4106	5	0
4107	3	0
4108	8	0
4109	11	0
4110	4	0
4111	10	0
4112	7	0
n	12	12
Mean	7	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 209 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 210 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	9	0
1102	8	0
1103	8	0
1104	7	0
1105	7	0
1106	7	0
1107	7	0
1108	8	0
1110	9	0
1111	7	0
1112	3	0
n	11	11
Mean	7	0
S.D.	2	0

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 211 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 212 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2102	6	0
2103	8	0
2104	7	0
2105	10	0
2106	7	0
2107	10	0
2108	8	0
2109	6	0
2110	8	0
2111	5	0
2112	8	0
n	11	11
Mean	8	0
S.D.	2	0

Animal No.2101:Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 213 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	1
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	7	0
3102	6	0
3103	7	0
3104	7	0
3105	9	0
3106	5	0
3107	8	0
3108	3	0
3109	8	0
3110	8	0
3111	6	0
3112	10	0
n	12	12
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 215 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	11	0
4102	7	0
4103	8	0
4105	7	0
4106	8	0
4107	6	0
4108	8	0
4109	9	0
4110	6	0
4111	11	0
4112	6	0
n	11	11
Mean	8	0
S.D.	2	0

Animal No.4104:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 217 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 218 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	9	0
1102	5	0
1103	9	0
1104	7	0
1105	5	0
1106	6	0
1107	8	0
1108	9	0
1110	9	0
1111	4	0
1112	4	0
n	11	11
Mean	7	0
S.D.	2	0

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 219 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	1
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2102	7	0
2103	6	0
2104	8	0
2105	9	0
2106	6	0
2107	6	0
2108	6	0
2109	8	0
2110	9	0
2111	6	0
2112	7	0
n	11	11
Mean	7	0
S.D.	1	0

Animal No.2101:Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 221 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	0
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	8	0
3102	8	0
3103	9	0
3104	7	0
3105	6	0
3106	6	0
3107	6	0
3108	5	0
3109	8	0
3110	7	0
3111	7	0
3112	8	0
n	12	12
Mean	7	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 223 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	8	0
4102	6	0
4103	10	0
4105	5	0
4106	7	0
4107	4	0
4108	7	0
4109	7	0
4110	7	0
4111	9	0
4112	6	0
n	11	11
Mean	7	0
S.D.	2	0

Animal No.4104:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 225 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	11	0
1102	4	0
1103	7	0
1104	10	0
1105	2	0
1106	4	0
1107	8	0
1108	5	0
1110	7	0
1111	5	0
1112	2	0
n	11	11
Mean	6	0
S.D.	3	0

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 227 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2102	5	0
2103	4	0
2104	9	0
2105	4	0
2106	5	0
2107	7	0
2108	5	0
2109	6	0
2110	6	0
2111	4	0
2112	8	0
n	11	11
Mean	6	0
S.D.	2	0

Animal No.2101:Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	0
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	7	0
3102	8	0
3103	6	0
3104	6	0
3105	8	0
3106	6	0
3107	8	0
3108	5	0
3109	6	0
3110	5	0
3111	4	0
3112	3	0
n	12	12
Mean	6	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 231 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	8	0
4102	8	0
4103	10	0
4105	3	0
4106	4	0
4107	3	0
4108	6	0
4109	5	0
4110	6	0
4111	10	0
4112	5	0
n	11	11
Mean	6	0
S.D.	3	0

Animal No.4104:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 233 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	3	0
1102	3	0
1103	6	0
1104	6	0
1105	2	0
1106	5	0
1107	6	0
1108	2	0
1110	5	0
1111	3	0
1112	2	0
n	11	11
Mean	4	0
S.D.	2	0

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 235 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2102	5	0
2103	3	0
2104	6	0
2105	5	0
2106	4	0
2107	6	0
2108	6	0
2109	5	0
2110	4	0
2111	4	0
2112	2	0
n	11	11
Mean	5	0
S.D.	1	0

Animal No.2101:Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 237 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	0
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 238 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	3	0
3102	3	0
3103	4	0
3104	3	0
3105	7	0
3106	6	0
3107	6	0
3108	7	0
3109	5	0
3110	5	0
3111	5	0
3112	6	0
n	12	12
Mean	5	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 239 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4109	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.4104:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	4	0
4102	1	0
4103	4	0
4105	4	0
4106	4	0
4107	2	0
4108	4	0
4109	5	0
4110	4	0
4111	4	0
4112	4	0
n	11	11
Mean	4	0
S.D.	1	0

Animal No.4104:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 241 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1101	0	0	0	0	0	N	0	0
1102	0	0	0	0	0	N	0	0
1103	0	0	0	0	0	N	0	0
1104	0	0	0	0	0	N	0	0
1105	0	0	0	0	0	N	0	0
1106	0	0	0	0	0	N	0	0
1107	0	0	0	0	0	N	0	0
1108	0	0	0	0	0	N	0	0
1110	0	0	0	0	0	N	0	0
1111	0	0	0	0	0	N	0	0
1112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.1109:Non-pregnancy
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	6	0
1102	8	0
1103	8	0
1104	6	0
1105	4	0
1106	5	0
1107	4	0
1108	7	0
1110	6	0
1111	5	0
1112	5	0
n	11	11
Mean	6	0
S.D.	1	0

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 243 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
2102	0	0	0	0	0	N	0	0
2103	0	0	0	0	0	N	0	0
2104	0	0	0	0	0	N	0	0
2105	0	0	0	0	0	N	0	0
2106	0	0	0	0	0	N	0	0
2107	0	0	0	0	0	N	0	0
2108	0	0	0	0	0	N	0	0
2109	0	0	0	0	0	N	0	0
2110	0	0	0	0	0	N	0	0
2111	0	0	0	0	0	N	0	0
2112	0	0	0	0	0	N	0	0
n	11	11	11	11	11	11	11	11

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.2101:Not copulated
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2102	4	0
2103	6	0
2104	4	0
2105	5	0
2106	4	0
2107	4	0
2108	5	0
2109	4	0
2110	5	0
2111	5	0
2112	5	0
n	11	11
Mean	5	0
S.D.	1	0

Animal No.2101:Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 245 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
3101	0	0	0	0	0	N	0	0
3102	0	0	0	0	0	N	0	0
3103	0	0	0	0	0	N	0	0
3104	0	0	0	0	0	N	0	0
3105	0	0	0	0	0	N	0	0
3106	0	0	0	0	0	N	0	0
3107	0	0	0	0	0	N	0	0
3108	0	0	0	0	0	N	0	0
3109	0	0	0	0	0	N	0	0
3110	0	0	0	0	0	N	0	0
3111	0	0	0	0	0	N	0	0
3112	0	0	0	0	0	N	0	0
n	12	12	12	12	12	12	12	12

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	6	0
3102	4	0
3103	7	0
3104	6	0
3105	7	0
3106	5	0
3107	6	0
3108	4	0
3109	5	0
3110	2	0
3111	7	0
3112	6	0
n	12	12
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4101	0	0	0	0	0	N	0	0
4102	0	0	0	0	0	N	0	0
4103	0	0	0	0	0	N	0	0
4105	0	0	0	0	0	N	0	0
4106	0	0	0	0	0	N	0	0
4107	0	0	0	0	0	N	0	0
4108	0	0	0	0	0	N	0	0
4110	0	0	0	0	0	N	0	0
4111	0	0	0	0	0	N	0	0
4112	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
Animal No.4104:Non-pregnancy
Animal No.4109:Necropsied on lactation day 1 because all pups died
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	6	0
4102	3	0
4103	9	0
4105	6	0
4106	7	0
4107	6	0
4108	5	0
4110	7	0
4111	5	0
4112	5	0
n	10	10
Mean	6	0
S.D.	2	0

Animal No.4104:Non-pregnancy

Animal No.4109:Necropsied on lactation day 1 because all pups died

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 249 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	0
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	8	0
5102	8	0
5103	7	0
5104	6	0
5105	7	0
5106	5	0
5107	6	0
5108	6	0
5109	9	0
5110	5	0
n	10	10
Mean	7	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 251 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	1
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	7	0
6102	8	0
6103	9	0
6104	12	0
6105	6	0
6106	6	0
6107	7	0
6108	6	0
6109	7	0
6110	6	0
n	10	10
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	0
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	8	0
5102	8	0
5103	12	0
5104	7	0
5105	6	0
5106	6	0
5107	4	0
5108	7	0
5109	9	0
5110	7	0
n	10	10
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	7	0
6102	5	0
6103	9	0
6104	6	0
6105	7	0
6106	6	0
6107	5	0
6108	6	0
6109	7	0
6110	8	0
n	10	10
Mean	7	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	0
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	6	0
5102	7	0
5103	5	0
5104	5	0
5105	6	0
5106	5	0
5107	5	0
5108	8	0
5109	8	0
5110	7	0
n	10	10
Mean	6	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 3 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	6	0
6102	8	0
6103	8	0
6104	8	0
6105	7	0
6106	6	0
6107	6	0
6108	6	0
6109	6	0
6110	7	0
n	10	10
Mean	7	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 261 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	1
5107	0	0	0	0	0	N	0	1
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	9	0
5102	12	0
5103	10	0
5104	7	0
5105	7	0
5106	5	0
5107	4	0
5108	8	0
5109	11	0
5110	7	0
n	10	10
Mean	8	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 263 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	6	0
6102	9	0
6103	8	0
6104	8	0
6105	9	0
6106	6	0
6107	8	0
6108	6	0
6109	10	0
6110	7	0
n	10	10
Mean	8	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 5 — Dose : hexaoxanon 0 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	0
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	8	0
5102	11	0
5103	10	0
5104	5	0
5105	8	0
5106	6	0
5107	4	0
5108	6	0
5109	13	0
5110	7	0
n	10	10
Mean	8	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 5 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 5 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Rearing	Defecation count
6101	6	0
6102	8	0
6103	9	0
6104	10	0
6105	5	0
6106	9	0
6107	8	0
6108	5	0
6109	9	0
6110	7	0
n	10	10
Mean	8	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 6 — Dose : hexaoxanon 0 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5101	0	0	0	0	0	N	0	0
5102	0	0	0	0	0	N	0	0
5103	0	0	0	0	0	N	0	0
5104	0	0	0	0	0	N	0	0
5105	0	0	0	0	0	N	0	0
5106	0	0	0	0	0	N	0	1
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	10	0
5102	8	0
5103	12	0
5104	6	0
5105	8	0
5106	5	0
5107	7	0
5108	6	0
5109	10	0
5110	7	0
n	10	10
Mean	8	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 271 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6101	0	0	0	0	0	N	0	0
6102	0	0	0	0	0	N	0	0
6103	0	0	0	0	0	N	0	0
6104	0	0	0	0	0	N	0	0
6105	0	0	0	0	0	N	0	0
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	10	10	10	10	10	10	10	10

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Administration

Generation : F0 — Sex : Female — Week : 6 — Dose : hexaoxanon 1000 mg/kg — Species : Rat

Animal No.	Rearing	Defecation count
6101	4	0
6102	7	0
6103	10	0
6104	9	0
6105	5	0
6106	7	0
6107	7	0
6108	5	0
6109	8	0
6110	5	0
n	10	10
Mean	7	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 273 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	1
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1008	3	0
1009	8	0
1010	5	0
1011	3	0
1012	5	0
n	5	5
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	1
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4008	5	0
4009	3	0
4010	3	0
4011	7	0
4012	8	0
n	5	5
Mean	5	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1008	0	0	0	0	0	N	0	0
1009	0	0	0	0	0	N	0	0
1010	0	0	0	0	0	N	0	1
1011	0	0	0	0	0	N	0	0
1012	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1008	3	0
1009	5	0
1010	3	0
1011	4	0
1012	2	0
n	5	5
Mean	3	0
S.D.	1	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 279 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Open field observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
4008	0	0	0	0	0	N	0	0
4009	0	0	0	0	0	N	0	0
4010	0	0	0	0	0	N	0	0
4011	0	0	0	0	0	N	0	0
4012	0	0	0	0	0	N	0	1
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4008	7	0
4009	5	0
4010	2	0
4011	7	0
4012	7	0
n	5	5
Mean	6	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Recovery

Generation : F0 — Sex : Female — Week : 1 — Dose : hexaoxanon 0 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5106	0	0	0	0	0	N	0	1
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	0
5110	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5106	3	0
5107	7	0
5108	4	0
5109	12	0
5110	10	0
n	5	5
Mean	7	0
S.D.	4	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6106	0	0	0	0	0	N	0	0
6107	0	0	0	0	0	N	0	0
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6106	5	0
6107	6	0
6108	3	0
6109	8	0
6110	9	0
n	5	5
Mean	6	0
S.D.	2	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation — Period : Recovery

Generation : F0 — Sex : Female — Week : 2 — Dose : hexaoxanon 0 mg/kg — Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
5106	0	0	0	0	0	N	0	1
5107	0	0	0	0	0	N	0	0
5108	0	0	0	0	0	N	0	0
5109	0	0	0	0	0	N	0	1
5110	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5106	6	0
5107	6	0
5108	9	0
5109	12	0
5110	9	0
n	5	5
Mean	8	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
6106	0	0	0	0	0	N	0	1
6107	0	0	0	0	0	N	0	1
6108	0	0	0	0	0	N	0	0
6109	0	0	0	0	0	N	0	0
6110	0	0	0	0	0	N	0	0
n	5	5	5	5	5	5	5	5

Arousal) -2: Unconscious/semi-conscious, -1: Reduced awareness, 0: Nomal, 1: Increased alertness, 2: Markedly alert
Convulsion) 0: None, 1: Minor, 2: Moderate, 3: Severe
Abnormal behavior) 0: None, 1: Minor, 2: Moderate, 3: Severe
Stereotypy) 0: None, 1: Minor, 2: Moderate, 3: Severe
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Grooming) 0: None, 1: Occasional bouts (up to four), 2: Numerous (more than four)
Urination) 0: None, 1: Small amount, 2: Moderate amount, 3: Large/excessive amount
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6106	8	0
6107	8	0
6108	4	0
6109	11	0
6110	9	0
n	5	5
Mean	8	0
S.D.	3	0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
1008	0	0	0	0	P
1009	0	0	0	0	P
1010	0	0	0	0	P
1011	0	0	0	0	P
1012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1008	0	80
1009	0	90
1010	0	98
1011	0	92
1012	0	73
n	5	5
Mean	0	87
S.D.	0	10

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
2008	0	0	0	0	P
2009	0	0	0	0	P
2010	0	0	0	0	P
2011	0	0	0	0	P
2012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
2008	0	51
2009	0	69
2010	0	90
2011	0	92
2012	0	51
n	5	5
Mean	0	71
S.D.	0	20

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
3008	0	0	0	0	P
3009	0	0	0	0	P
3010	0	0	0	0	P
3011	0	0	0	0	P
3012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
3008	0	78
3009	0	88
3010	0	94
3011	0	87
3012	0	83
n	5	5
Mean	0	86
S.D.	0	6

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
4008	0	0	0	0	P
4009	0	0	0	0	P
4010	0	0	0	0	P
4011	0	0	0	0	P
4012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 6 Period : F0 mating
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4008	0	73
4009	0	72
4010	0	72
4011	0	69
4012	0	102
n	5	5
Mean	0	78
S.D.	0	14

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Day : 4 Period : F0 lactation
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
1101	0	0	0	0	P
1103	0	0	0	0	P
1105	0	0	0	0	P
1107	0	0	0	0	P
1110	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Day : 4 Period : F0 lactation
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1101	0	47
1103	0	46
1105	0	52
1107	0	73
1110	0	42
n	5	5
Mean	0	52
S.D.	0	12

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
2102	0	0	0	0	P
2106	0	0	0	0	P
2107	0	0	0	0	P
2111	0	0	0	0	P
2112	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 300 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
2102	0	74
2106	0	92
2107	0	40
2111	0	65
2112	0	79
n	5	5
Mean	0	70
S.D.	0	19

Aerial righting reflex) Total score

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 301 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
3101	0	0	0	0	P
3107	0	0	0	0	P
3109	0	0	0	0	P
3110	0	0	0	0	P
3111	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
3101	0	64
3107	0	58
3109	0	72
3110	0	38
3111	0	52
n	5	5
Mean	0	57
S.D.	0	13

Aerial righting reflex) Total score

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 303 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
4102	0	0	0	0	P
4103	0	0	0	0	P
4106	0	0	0	0	P
4110	0	0	0	0	P
4111	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4102	0	67
4103	0	49
4106	0	62
4110	0	68
4111	0	83
n	5	5
Mean	0	66
S.D.	0	12

Aerial righting reflex) Total score

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Week : 6 Period : Administration
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
5106	0	0	0	0	P
5107	0	0	0	0	P
5108	0	0	0	0	P
5109	0	0	0	0	P
5110	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Week : 6 Period : Administration
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
5106	0	87
5107	0	46
5108	0	68
5109	0	76
5110	0	96
n	5	5
Mean	0	75
S.D.	0	19

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Week : 6 Period : Administration
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
6106	0	0	0	0	P
6107	0	0	0	0	P
6108	0	0	0	0	P
6109	0	0	0	0	P
6110	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Week : 6 Period : Administration
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
6106	0	103
6107	0	55
6108	0	87
6109	0	44
6110	0	53
n	5	5
Mean	0	68
S.D.	0	25

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 2 Period : Recovery
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
1008	0	0	0	0	P
1009	0	0	0	0	P
1010	0	0	0	0	P
1011	0	0	0	0	P
1012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1008	0	56
1009	0	79
1010	0	102
1011	0	70
1012	0	78
n	5	5
Mean	0	77
S.D.	0	17

Aerial righting reflex) Total score

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 311 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
4008	0	0	0	0	P
4009	0	0	0	0	P
4010	0	0	0	0	P
4011	0	0	0	0	P
4012	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Male Week : 2 Period : Recovery
Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4008	0	56
4009	0	97
4010	0	67
4011	0	73
4012	0	107
n	5	5
Mean	0	80
S.D.	0	21

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Generation : F0 Sex : Female Week : 2 Period : Recovery
Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
5106	0	0	0	0	P
5107	0	0	0	0	P
5108	0	0	0	0	P
5109	0	0	0	0	P
5110	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test
Period : Recovery
Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
5106	0	93
5107	0	61
5108	0	69
5109	0	83
5110	0	87
n	5	5
Mean	0	79
S.D.	0	13

Aerial righting reflex) Total score
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 315 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Manipulative test Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
6106	0	0	0	0	P
6107	0	0	0	0	P
6108	0	0	0	0	P
6109	0	0	0	0	P
6110	0	0	0	0	P
n	5	5	5	5	5

Auditory response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Approach response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Touch response) -1: No reaction/ignores, 0: Normal, 1: Abnormality fearful/aggressive reaction
Tail pinch response) -2: None, -1: Weak, 0: Normal, 1: Exaggerate
Pupillary reflex) P: Pass, both, F: Failed, neither, L: Left pupil responds, R: Right pupil responds
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Manipulative test

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
6106	0	104
6107	0	76
6108	0	97
6109	0	57
6110	0	54
n	5	5
Mean	0	78
S.D.	0	23

Aerial righting reflex) Total score

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1008	1786	1011
1009	1487	880
1010	1633	844
1011	1345	677
1012	1973	1024
n	5	5
Mean	1645	887
S.D.	246	142

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Generation : F0 Sex : Male Week : 6 Period : F0 mating

Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
2008	1747	797
2009	1891	817
2010	1488	980
2011	1970	912
2012	1484	843
n	5	5
Mean	1716	870
S.D.	225	75

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
3008	1502	760
3009	1506	766
3010	1592	839
3011	1902	932
3012	1927	710
n	5	5
Mean	1686	801
S.D.	212	86

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4008	1599	723
4009	1468	771
4010	1442	1017
4011	1544	665
4012	1759	985
n	5	5
Mean	1562	832
S.D.	126	159

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1101	1251	747
1103	1662	818
1105	1236	882
1107	1326	795
1110	1244	842
n	5	5
Mean	1344	817
S.D.	181	51

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
2102	1408	638
2106	1401	869
2107	1272	939
2111	1370	745
2112	1358	718
n	5	5
Mean	1362	782
S.D.	54	121

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
3101	1174	663
3107	1606	907
3109	1289	827
3110	1238	537
3111	1195	755
n	5	5
Mean	1300	738
S.D.	176	144

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4102	1235	771
4103	1497	769
4106	1163	787
4110	1433	777
4111	1361	1013
n	5	5
Mean	1338	823
S.D.	138	106

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
5106	1399	530
5107	1399	556
5108	1435	765
5109	1470	784
5110	1192	715
n	5	5
Mean	1379	670
S.D.	109	119

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
6106	1041	845
6107	1283	660
6108	1568	674
6109	961	695
6110	1463	725
n	5	5
Mean	1263	720
S.D.	262	74

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1008	2187	1072
1009	1839	928
1010	2191	1039
1011	1938	984
1012	1981	1117
n	5	5
Mean	2027	1028
S.D.	156	74

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4008	2009	883
4009	1837	935
4010	1845	1309
4011	1821	769
4012	2054	1259
n	5	5
Mean	1913	1031
S.D.	109	239

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
5106	1523	690
5107	1528	851
5108	1713	806
5109	1594	1013
5110	1577	820
n	5	5
Mean	1587	836
S.D.	77	116

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Grip strength

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
6106	1426	1050
6107	1695	838
6108	1760	925
6109	1344	715
6110	1736	883
n	5	5
Mean	1592	882
S.D.	193	122

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 331 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
1008	479	195	86	70	4	16	850
1009	489	453	316	28	3	88	1377
1010	484	405	336	305	357	240	2127
1011	399	271	331	117	25	13	1156
1012	344	311	186	90	9	15	955
n	5	5	5	5	5	5	5
Mean	439	327	251	122	80	74	1293
S.D.	65	103	111	107	155	98	508

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 100 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
2008	435	354	391	346	228	273	2027
2009	445	356	323	241	135	19	1519
2010	417	315	332	76	0	61	1201
2011	361	332	298	59	83	21	1154
2012	427	375	130	247	48	312	1539
n	5	5	5	5	5	5	5
Mean	417	346	295	194	99	137	1488
S.D.	33	23	98	123	87	143	349

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 333 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 300 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
3008	485	384	379	468	400	345	2461
3009	376	197	159	18	4	4	758
3010	419	404	277	216	75	1	1392
3011	427	197	45	97	3	7	776
3012	428	423	182	38	133	11	1215
n	5	5	5	5	5	5	5
Mean	427	321	208	167	123	74	1320
S.D.	39	114	126	185	164	152	695

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
4008	357	243	272	56	7	17	952
4009	439	224	74	226	45	225	1233
4010	396	309	120	15	92	172	1104
4011	461	401	144	85	363	323	1777
4012	430	217	313	70	26	37	1093
n	5	5	5	5	5	5	5
Mean	417	279	185	90	107	155	1232
S.D.	41	77	103	80	147	129	321

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 0 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
1101	305	200	49	5	33	1	593
1103	344	173	276	209	22	184	1208
1105	304	206	37	21	87	34	689
1107	395	246	144	144	140	1	1070
1110	469	381	20	268	190	63	1391
n	5	5	5	5	5	5	5
Mean	363	241	105	129	94	57	990
S.D.	70	82	107	115	71	76	340

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 336 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 100 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
2102	417	334	118	4	87	0	960
2106	157	29	2	20	15	38	261
2107	425	347	307	40	34	36	1189
2111	340	104	66	343	287	194	1334
2112	341	278	160	226	237	110	1352
n	5	5	5	5	5	5	5
Mean	336	218	131	127	132	76	1019
S.D.	108	144	115	151	123	77	452

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 300 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
3101	271	316	65	123	136	178	1089
3107	241	48	5	0	5	29	328
3109	316	140	17	13	0	99	585
3110	418	301	271	239	154	225	1608
3111	368	38	79	90	140	240	955
n	5	5	5	5	5	5	5
Mean	323	169	87	93	87	154	913
S.D.	72	134	107	97	77	89	491

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 338 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : hexaoxanon 1000 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
4102	442	263	92	56	13	4	870
4103	436	283	261	139	278	288	1685
4106	362	174	194	72	14	12	828
4110	292	115	25	8	135	46	621
4111	242	25	91	40	5	11	414
n	5	5	5	5	5	5	5
Mean	355	172	133	63	89	72	884
S.D.	88	107	94	49	119	122	483

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity
Period : Administration
Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 0 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
5106	407	260	49	27	43	299	1085
5107	416	274	232	218	76	2	1218
5108	433	230	4	0	107	303	1077
5109	481	344	295	184	15	236	1555
5110	385	278	44	144	0	4	855
n	5	5	5	5	5	5	5
Mean	424	277	125	115	48	169	1158
S.D.	36	42	130	96	44	154	257

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : hexaoxanon 1000 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
6106	461	345	284	438	232	21	1781
6107	483	454	392	70	10	54	1463
6108	420	402	228	107	278	82	1517
6109	425	301	75	116	254	268	1439
6110	445	390	374	363	23	96	1691
n	5	5	5	5	5	5	5
Mean	447	378	271	219	159	104	1578
S.D.	26	58	128	169	132	96	150

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 2 - 341 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Motor activity Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
1008	453	222	266	358	19	241	1559
1009	396	413	358	352	311	327	2157
1010	470	427	366	439	395	398	2495
1011	254	209	177	208	161	311	1320
1012	365	231	233	264	347	291	1731
n	5	5	5	5	5	5	5
Mean	388	300	280	324	247	314	1852
S.D.	86	110	81	90	154	57	472

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
4008	417	368	385	344	329	382	2225
4009	324	137	347	199	200	401	1608
4010	428	288	237	260	209	314	1736
4011	432	436	337	334	321	360	2220
4012	339	330	279	304	271	305	1828
n	5	5	5	5	5	5	5
Mean	388	312	317	288	266	352	1923
S.D.	52	112	59	60	60	42	284

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 0 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
5106	360	262	79	129	159	208	1197
5107	350	247	201	52	5	0	855
5108	385	328	322	10	178	3	1226
5109	569	349	239	389	314	49	1909
5110	485	376	307	89	19	11	1287
n	5	5	5	5	5	5	5
Mean	430	312	230	134	135	54	1295
S.D.	94	56	98	149	127	88	382

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Motor activity

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : hexaoxanon 1000 mg/kg Species : Rat

	0'-10'	10'-20'	20'-30'	30'-40'	40'-50'	50'-60'	Total(0'-60')
Animal No.	Count	Count	Count	Count	Count	Count	Count
6106	421	305	295	317	198	0	1536
6107	498	328	466	118	3	319	1732
6108	414	284	278	255	205	12	1448
6109	391	261	303	274	263	133	1625
6110	443	359	363	396	129	7	1697
n	5	5	5	5	5	5	5
Mean	433	307	341	272	160	94	1608
S.D.	41	38	77	102	100	137	117

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-42

Sex : Male Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
1001	415	428	443	455	477	504	516	101
1002	418	440	460	469	482	498	513	95
1003	432	444	468	488	515	530	554	122
1004	382	396	413	433	458	474	484	102
1005	437	455	468	469	480	495	503	66
1006	410	437	459	482	498	514	542	132
1007	395	418	435	450	470	481	499	104
1008	387	396	412	437	467	478	483	96
1009	409	418	431	455	474	498	507	98
1010	430	445	466	478	505	520	536	106
1011	387	414	437	447	451	477	491	104
1012	407	425	444	455	471	486	498	91
n	12	12	12	12	12	12	12	12
Mean	409	426	445	460	479	496	511	101
S.D.	19	19	20	17	19	18	23	16

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-42

Sex : Male Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
2001	426	442	460	476	486	485	506	80
2002	439	449	468	477	497	511	524	85
2003	409	410	431	450	469	479	487	78
2004	386	395	408	424	435	439	444	58
2005	397	415	431	440	462	481	499	102
2006	411	433	449	466	478	488	483	72
2007	431	444	470	490	525	536	557	126
2008	417	425	442	457	477	493	507	90
2009	406	428	457	475	493	511	524	118
2010	389	398	425	442	466	476	491	102
2011	404	421	436	444	465	483	485	81
2012	413	436	443	468	487	485	505	92
n	12	12	12	12	12	12	12	12
Mean	411	425	443	459	478	489	501	90
S.D.	16	18	18	19	22	24	28	19

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-42

Sex : Male Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
3001	427	450	478	501	533	563	599	172
3002	412	431	451	466	505	521	540	128
3003	411	425	434	450	468	486	510	99
3004	395	412	436	444	460	467	482	87
3005	399	409	426	444	462	475	489	90
3006	426	451	483	503	531	551	573	147
3007	431	460	492	521	546	549	578	147
3008	423	450	486	515	539	553	574	151
3009	406	420	429	442	463	472	484	78
3010	404	454	481	500	525	542	565	161
3011	410	414	439	465	459	491	501	91
3012	389	399	425	448	464	482	499	110
n	12	12	12	12	12	12	12	12
Mean	411	431	455	475	496	513	533	122
S.D.	13	21	27	31	36	37	43	33

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-42

Sex : Male Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
4001	390	397	403	419	430	424	456	66
4002	407	424	420	439	469	457	503	96
4003	412	430	441	469	490	487	498	86
4004	428	457	474	480	504	527	548	120
4005	442	459	470	488	510	520	538	96
4006	398	414	428	447	456	465	472	74
4007	397	412	432	447	469	481	509	112
4008	384	407	425	442	460	472	485	101
4009	407	412	433	451	467	481	492	85
4010	424	436	457	474	496	519	522	98
4011	398	418	436	453	464	473	486	88
4012	420	441	461	486	502	519	525	105
n	12	12	12	12	12	12	12	12
Mean	409	426	440	458	476	485	503	94
S.D.	17	20	21	21	24	31	27	15

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
1101	244	249	264	20
1102	250	256	266	16
1103	257	270	281	24
1104	255	273	277	22
1105	247	265	265	18
1106	247	254	249	2
1107	250	258	266	16
1108	256	268	266	10
1109	252	248	258	6
1110	254	256	274	20
1111	245	249	251	6
1112	248	275	289	41
n	12	12	12	12
Mean	250	260	267	17
S.D.	4	10	12	10

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
2101	242	259	272	30
2102	239	249	264	25
2103	239	248	255	16
2104	255	259	262	7
2105	232	233	236	4
2106	247	251	266	19
2107	265	272	281	16
2108	246	256	258	12
2109	257	264	259	2
2110	262	275	288	26
2111	243	246	263	20
2112	282	285	301	19
n	12	12	12	12
Mean	251	258	267	16
S.D.	14	14	17	9

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
3101	234	253	263	29
3102	260	275	288	28
3103	251	268	279	28
3104	246	257	262	16
3105	251	250	272	21
3106	264	276	282	18
3107	252	273	274	22
3108	244	264	276	32
3109	247	250	262	15
3110	249	249	261	12
3111	232	244	241	9
3112	273	273	283	10
n	12	12	12	12
Mean	250	261	270	20
S.D.	12	12	13	8

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
4101	250	261	274	24
4102	236	251	259	23
4103	232	247	257	25
4104	274	278	297	23
4105	264	271	288	24
4106	251	267	259	8
4107	241	253	249	8
4108	232	249	255	23
4109	260	268	274	14
4110	259	277	284	25
4111	279	284	292	13
4112	238	241	253	15
n	12	12	12	12
Mean	251	262	270	19
S.D.	16	14	17	7

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
1101	260	289	321	418	158
1102	280	311	344	436	156
1103	291	329	355	438	147
1104	282	325	357	449	167
1105	274	308	335	427	153
1106	262	302	332	418	156
1107	266	292	324	412	146
1108	270	316	351	442	172
1110	276	319	354	444	168
1111	266	289	322	416	150
1112	292	323	361	466	174
n	11	11	11	11	11
Mean	274	309	341	433	159
S.D.	11	15	15	17	10

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
2102	262	297	338	423	161
2103	264	301	335	419	155
2104	269	307	337	431	162
2105	243	279	317	416	173
2106	276	308	348	443	167
2107	286	301	333	418	132
2108	266	294	320	403	137
2109	277	321	353	434	157
2110	284	320	363	467	183
2111	264	294	321	399	135
2112	307	338	373	468	161
n	11	11	11	11	11
Mean	273	305	340	429	157
S.D.	16	16	18	23	16

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
3101	256	295	333	437	181
3102	285	320	347	435	150
3103	281	314	348	440	159
3104	262	286	316	397	135
3105	268	317	346	435	167
3106	275	301	335	412	137
3107	285	309	335	411	126
3108	290	329	365	441	151
3109	269	293	325	406	137
3110	263	306	344	440	177
3111	244	277	317	407	163
3112	293	323	361	436	143
n	12	12	12	12	12
Mean	273	306	339	425	152
S.D.	15	16	16	17	17

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
4101	269	297	335	419	150
4102	260	293	325	412	152
4103	271	311	344	435	164
4105	297	332	370	461	164
4106	264	291	327	425	161
4107	269	310	348	433	164
4108	264	301	340	434	170
4109	280	316	354	432	152
4110	289	327	363	445	156
4111	293	321	362	437	144
4112	253	290	315	377	124
n	11	11	11	11	11
Mean	274	308	344	428	155
S.D.	14	15	18	21	13

Animal No.4104: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
1101	308	337	29
1102	333	332	-1
1103	351	348	-3
1104	337	375	38
1105	335	328	-7
1106	317	341	24
1107	318	337	19
1108	329	355	26
1110	369	352	-17
1111	311	327	16
1112	358	366	8
n	11	11	11
Mean	333	345	12
S.D.	20	16	17

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
2102	327	331	4
2103	325	327	2
2104	292	325	33
2105	294	320	26
2106	346	365	19
2107	316	340	24
2108	302	325	23
2109	339	347	8
2110	349	361	12
2111	304	334	30
2112	337	353	16
n	11	11	11
Mean	321	339	18
S.D.	21	16	10

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
3101	345	337	-8
3102	329	365	36
3103	331	348	17
3104	291	308	17
3105	341	370	29
3106	323	324	1
3107	306	330	24
3108	343	368	25
3109	344	335	-9
3110	331	357	26
3111	307	298	-9
3112	329	356	27
n	12	12	12
Mean	327	341	15
S.D.	17	23	16

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
4101	319	315	-4
4102	321	319	-2
4103	310	338	28
4105	359	373	14
4106	335	324	-11
4107	321	346	25
4108	306	327	21
4109 a)	322		
4110	352	362	10
4111	369	366	-3
4112	303	314	11
n	11	10	10
Mean	329	338	9
S.D.	22	22	13

Animal No.4104: Non-pregnancy

a): Necropsied on lactation day 1 because all pups died

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Administration

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
5101	256	270	274	293	309	319	324	68
5102	253	258	266	281	292	291	300	47
5103	231	248	261	267	274	292	301	70
5104	264	278	280	287	297	301	310	46
5105	262	267	287	296	305	306	324	62
5106	231	241	248	251	246	256	257	26
5107	243	247	262	272	286	297	310	67
5108	238	245	258	259	260	270	276	38
5109	259	266	272	287	296	299	310	51
5110	250	251	260	270	268	284	285	35
n	10	10	10	10	10	10	10	10
Mean	249	257	267	276	283	292	300	51
S.D.	12	13	12	15	21	18	21	15

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
6101	268	276	278	295	304	310	319	51
6102	248	266	263	279	278	283	289	41
6103	226	235	248	244	263	268	269	43
6104	257	269	270	276	280	275	295	38
6105	248	252	255	260	264	261	271	23
6106	252	266	269	266	280	294	294	42
6107	250	269	282	289	292	303	309	59
6108	245	255	256	259	265	273	278	33
6109	252	258	254	274	287	293	298	46
6110	247	267	264	278	278	286	288	41
n	10	10	10	10	10	10	10	10
Mean	249	261	264	272	279	285	291	42
S.D.	11	12	11	15	13	16	16	10

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
1008	481	488	486	5
1009	506	530	539	33
1010	535	563	563	28
1011	496	517	531	35
1012	496	517	524	28
n	5	5	5	5
Mean	503	523	529	26
S.D.	20	27	28	12

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
4008	487	504	518	31
4009	491	508	516	25
4010	523	535	540	17
4011	486	500	513	27
4012	523	548	562	39
n	5	5	5	5
Mean	502	519	530	28
S.D.	19	21	21	8

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
5106	259	260	272	13
5107	303	307	303	0
5108	274	274	275	1
5109	305	313	313	8
5110	293	275	290	-3
n	5	5	5	5
Mean	287	286	291	4
S.D.	20	23	18	7

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 3 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
6106	299	294	305	6
6107	313	312	318	5
6108	272	292	290	18
6109	286	309	303	17
6110	285	283	299	14
n	5	5	5	5
Mean	291	298	303	12
S.D.	16	12	10	6

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
1001	19	23	19	19	21	25	126
1002	21	24	22	17	21	20	125
1003	20	23	25	18	18	19	123
1004	22	21	20	18	20	20	121
1005	25	23	20	19	21	14	122
1006	29	21	21	18	26	23	138
1007	21	22	22	18	19	21	123
1008	18	17	20	18	19	15	107
1009	20	22	22	21	31	19	135
1010	22	24	23	18	22	20	129
1011	18	21	20	15	20	16	110
1012	23	24	19	16	19	18	119
n	12	12	12	12	12	12	12
Mean	22	22	21	18	21	19	123
S.D.	3	2	2	2	4	3	9

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
2001	24	23	24	15	18	22	126
2002	26	26	24	19	20	21	136
2003	20	18	19	20	19	18	114
2004	18	18	20	15	19	16	106
2005	25	20	19	18	17	19	118
2006	27	22	20	15	18	16	118
2007	20	21	25	19	19	22	126
2008	23	24	21	19	20	19	126
2009	23	20	26	19	21	20	129
2010	18	16	20	17	18	18	107
2011	22	22	20	20	19	16	119
2012	21	24	18	19	17	21	120
n	12	12	12	12	12	12	12
Mean	22	21	21	18	19	19	120
S.D.	3	3	3	2	1	2	9

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
3001	23	25	25	23	25	24	145
3002	20	25	25	24	23	21	138
3003	17	22	20	21	20	22	122
3004	18	20	23	18	17	16	112
3005	24	23	24	19	22	20	132
3006	21	26	27	21	24	22	141
3007	22	23	26	23	19	20	133
3008	25	27	31	22	25	22	152
3009	20	19	24	16	21	20	120
3010	23	24	25	22	20	23	137
3011	15	19	26	18	21	21	120
3012	21	22	24	18	22	21	128
n	12	12	12	12	12	12	12
Mean	21	23	25	20	22	21	132
S.D.	3	3	3	3	2	2	12

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
4001	20	22	23	19	21	21	126
4002	17	18	14	20	16	22	107
4003	21	20	26	19	21	19	126
4004	22	29	28	26	30	26	161
4005	26	21	22	26	21	21	137
4006	19	20	19	21	18	19	116
4007	19	22	20	19	20	24	124
4008	20	21	19	19	18	20	117
4009	17	19	23	19	20	22	120
4010	22	22	23	21	24	18	130
4011	18	22	23	16	20	18	117
4012	28	25	23	22	23	22	143
n	12	12	12	12	12	12	12
Mean	21	22	22	21	21	21	127
S.D.	3	3	4	3	4	2	14

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
1101	13	14	16	43
1102	19	14	20	53
1103	14	16	19	49
1104	15	20	20	55
1105	15	19	15	49
1106	16	20	14	50
1107	14	15	17	46
1108	11	20	16	47
1109	15	11	17	43
1110	16	12	18	46
1111	13	17	13	43
1112	16	21	21	58
n	12	12	12	12
Mean	15	17	17	49
S.D.	2	3	3	5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
2101	14	18	19	51
2102	16	15	15	46
2103	13	18	15	46
2104	15	15	13	43
2105	11	17	12	40
2106	15	14	17	46
2107	15	13	16	44
2108	14	19	14	47
2109	13	17	10	40
2110	12	27	22	61
2111	12	15	20	47
2112	15	16	18	49
n	12	12	12	12
Mean	14	17	16	47
S.D.	2	4	3	6

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
3101	9	19	19	47
3102	11	18	19	48
3103	13	18	19	50
3104	9	17	13	39
3105	10	11	20	41
3106	10	20	15	45
3107	13	21	17	51
3108	13	20	20	53
3109	15	14	15	44
3110	14	12	15	41
3111	11	18	12	41
3112	18	15	20	53
n	12	12	12	12
Mean	12	17	17	46
S.D.	3	3	3	5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
4101	10	20	21	51
4102	14	18	19	51
4103	13	17	24	54
4104	17	25	31	73
4105	15	16	21	52
4106	14	19	12	45
4107	12	20	14	46
4108	13	24	21	58
4109	15	20	18	53
4110	16	21	21	58
4111	17	18	20	55
4112	16	12	13	41
n	12	12	12	12
Mean	14	19	20	53
S.D.	2	3	5	8

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
1101	12	15	18	20	65
1102	17	17	17	24	75
1103	19	24	19	21	83
1104	18	21	22	26	87
1105	13	19	22	27	81
1106	13	21	20	19	73
1107	13	19	19	23	74
1108	14	20	19	26	79
1110	13	20	22	24	79
1111	13	16	19	22	70
1112	20	19	22	27	88
n	11	11	11	11	11
Mean	15	19	20	24	78
S.D.	3	3	2	3	7

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
2102	12	16	20	21	69
2103	12	19	18	25	74
2104	9	20	17	24	70
2105	14	18	21	22	75
2106	16	26	18	23	83
2107	13	17	18	21	69
2108	15	20	19	19	73
2109	11	23	21	22	77
2110	19	21	24	25	89
2111	14	22	16	21	73
2112	18	19	19	25	81
n	11	11	11	11	11
Mean	14	20	19	23	76
S.D.	3	3	2	2	6

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
3101	11	19	25	24	79
3102	19	20	18	23	80
3103	16	16	20	21	73
3104	12	18	16	16	62
3105	15	23	21	27	86
3106	10	15	16	20	61
3107	17	17	16	19	69
3108	17	19	22	26	84
3109	15	17	15	23	70
3110	15	21	21	26	83
3111	13	19	16	17	65
3112	15	22	23	26	86
n	12	12	12	12	12
Mean	15	19	19	22	75
S.D.	3	2	3	4	9

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
4101	10	19	21	27	77
4102	19	19	18	25	81
4103	16	22	20	23	81
4105	18	23	23	20	84
4106	11	18	17	23	69
4107	11	23	22	21	77
4108	18	21	26	25	90
4109	14	18	21	25	78
4110	19	22	19	28	88
4111	12	17	19	24	72
4112	20	19	19	23	81
n	11	11	11	11	11
Mean	15	20	20	24	80
S.D.	4	2	3	2	6

Animal No.4104: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
1101	28	43	71
1102	21	35	56
1103	21	37	58
1104	33	47	80
1105	22	33	55
1106	40	49	89
1107	23	41	64
1108	40	50	90
1110	18	33	51
1111	30	41	71
1112	25	38	63
n	11	11	11
Mean	27	41	68
S.D.	8	6	14

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	/Day 4	Total food consumption
2102	11	42	53
2103	29	40	69
2104	20	59	79
2105	35	41	76
2106	29	46	75
2107	28	41	69
2108	30	40	70
2109	23	41	64
2110	27	38	65
2111	31	43	74
2112	26	39	65
n	11	11	11
Mean	26	43	69
S.D.	6	6	7

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
3101	23	41	64
3102	38	42	80
3103	29	43	72
3104	24	45	69
3105	37	49	86
3106	20	32	52
3107	30	42	72
3108	25	5	30
3109	26	42	68
3110	32	46	78
3111	14	33	47
3112	32	38	70
n	12	12	12
Mean	28	38	66
S.D.	7	12	16

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
4101	24	36	60
4102	18	35	53
4103	29	47	76
4105	21	52	73
4106	13	37	50
4107	28	42	70
4108	26	41	67
4110	24	41	65
4111	21	35	56
4112	22	27	49
n	10	10	10
Mean	23	39	62
S.D.	5	7	10

Animal No.4104: Non-pregnancy

Animal No.4109: Necropsied on lactation day 1 because all pups died

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Administration

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
5101	14	20	18	13	15	16	96
5102	13	16	15	11	12	18	85
5103	15	18	21	14	20	17	105
5104	14	20	16	15	14	14	93
5105	15	17	18	15	13	17	95
5106	14	18	21	14	18	18	103
5107	14	14	18	14	13	19	92
5108	11	16	17	12	12	13	81
5109	14	16	17	10	14	16	87
5110	14	12	18	13	24	13	94
n	10	10	10	10	10	10	10
Mean	14	17	18	13	16	16	93
S.D.	1	2	2	2	4	2	7

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
6101	16	19	14	18	14	17	98
6102	14	21	14	11	16	16	92
6103	9	17	16	15	11	10	78
6104	16	21	15	19	9	18	98
6105	14	13	14	17	9	14	81
6106	9	20	17	11	17	13	87
6107	16	20	20	17	15	15	103
6108	10	20	15	15	32	11	103
6109	12	19	13	14	21	15	94
6110	16	16	12	16	12	13	85
n	10	10	10	10	10	10	10
Mean	13	19	15	15	16	14	92
S.D.	3	3	2	3	7	3	9

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
1008	22	25	17	64
1009	26	26	25	77
1010	25	26	24	75
1011	24	27	24	75
1012	23	26	23	72
n	5	5	5	5
Mean	24	26	23	73
S.D.	2	1	3	5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Male Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
4008	21	25	23	69
4009	23	28	25	76
4010	28	30	25	83
4011	23	27	23	73
4012	31	27	26	84
n	5	5	5	5
Mean	25	27	24	77
S.D.	4	2	1	6

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
5106	18	18	22	58
5107	14	18	15	47
5108	16	15	17	48
5109	16	19	19	54
5110	18	14	17	49
n	5	5	5	5
Mean	16	17	18	51
S.D.	2	2	3	5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 4 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Food consumption Period : Recovery Day 1-15

Sex : Female Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
6106	21	12	20	53
6107	18	15	18	51
6108	17	19	18	54
6109	16	22	17	55
6110	16	13	17	46
n	5	5	5	5
Mean	18	16	18	52
S.D.	2	4	1	4

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
1008	7.0	2+	1+	-	+/-	-	+/-	Y
1009	8.5	1+	1+	-	+/-	-	+/-	Y
1010	7.0	1+	1+	-	+/-	-	+/-	Y
1011	>=9.0	1+	1+	-	+/-	-	+/-	Y
1012	8.5	1+	+/-	-	+/-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
2008	8.5	1+	+/-	-	-	-	+/-	Y
2009	6.5	2+	1+	-	-	-	+/-	Y
2010	8.0	1+	1+	-	+/-	-	+/-	Y
2011	8.0	2+	1+	-	-	1+	+/-	Y
2012	8.5	+/-	1+	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
3008	7.0	2+	1+	-	-	1+	+/-	Y
3009	8.5	2+	1+	-	-	1+	+/-	Y
3010	8.5	+/-	+/-	-	-	-	+/-	Y
3011	7.0	1+	+/-	-	-	-	+/-	Y
3012	7.0	1+	1+	-	+/-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
4008	8.0	3+	1+	-	-	-	+/-	Y
4009	8.5	2+	1+	-	+/-	-	+/-	Y
4010	7.0	1+	+/-	-	-	-	+/-	Y
4011	7.5	2+	+/-	-	-	-	+/-	Y
4012	8.5	2+	1+	-	+/-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
1008	-	-	+/-	-	-	-	-
1009	-	-	+/-	-	-	+/-	-
1010	-	-	+/-	-	-	-	-
1011	-	-	+/-	-	-	+/-	-
1012	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
2008	-	+/-	+/-	-	-	-	-
2009	-	-	+/-	-	-	-	-
2010	-	-	+/-	-	-	+/-	-
2011	-	-	+/-	-	-	-	-
2012	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
3008	-	-	+/-	-	-	-	-
3009	-	-	+/-	-	-	+/-	-
3010	-	-	+/-	-	-	+/-	-
3011	-	-	+/-	-	-	+/-	-
3012	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
4008	-	-	+/-	-	-	-	-
4009	-	-	+/-	-	-	-	-
4010	-	-	+/-	+/-	-	-	-
4011	-	-	+/-	-	-	+/-	-
4012	-	-	+/-	-	-	+/-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
1008	40	6.6	1976	0.5	2.1	1.0
1009	45	12.5	1700	0.7	3.5	1.4
1010	48	9.0	1792	0.6	2.6	1.2
1011	34	12.4	1788	1.5	3.5	2.0
1012	50	16.1	1290	0.9	3.0	1.5
n	5	5	5	5	5	5
Mean	43	11.3	1709	0.8	2.9	1.4
S.D.	6	3.6	255	0.4	0.6	0.4

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
2008	37	16.4	1568	1.2	3.8	1.8
2009	42	10.3	1690	0.8	2.6	1.2
2010	36	16.4	1600	1.6	4.3	2.3
2011	30	5.3	2942	0.8	2.5	1.1
2012	43	16.5	1716	1.8	4.0	2.2
n	5	5	5	5	5	5
Mean	38	13.0	1903	1.2	3.4	1.7
S.D.	5	5.0	584	0.5	0.8	0.6

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
3008	37	8.3	2390	0.8	3.1	1.4
3009	32	7.1	2426	1.3	2.6	1.5
3010	55	17.4	1798	1.7	4.6	2.4
3011	37	5.8	2664	0.8	2.5	1.1
3012	40	8.1	2452	1.2	3.0	1.9
n	5	5	5	5	5	5
Mean	40	9.3	2346	1.2	3.2	1.7
S.D.	9	4.6	324	0.4	0.8	0.5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
4008	34	7.5	2534	1.2	2.9	1.6
4009	36	11.5	1794	1.0	3.0	1.5
4010	43	11.0	2056	1.1	3.3	1.7
4011	44	10.3	1688	0.6	2.6	1.2
4012	42	14.1	2000	1.2	4.0	1.9
n	5	5	5	5	5	5
Mean	40	10.9	2014	1.0	3.2	1.6
S.D.	4	2.4	327	0.2	0.5	0.3

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
5106	6.0	1+	+/-	-	-	-	+/-	Y
5107	8.0	-	-	-	-	-	+/-	Y
5108	6.0	2+	-	-	-	-	+/-	Y
5109	8.0	-	-	-	-	-	+/-	Y
5110	7.0	-	-	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
6106	8.0	-	-	-	-	-	+/-	Y
6107	6.0	1+	-	-	-	-	+/-	Y
6108	6.5	+/-	-	-	-	-	+/-	Y
6109	8.0	-	-	-	-	-	+/-	Y
6110	6.0	+/-	-	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
5106	-	-	+/-	-	-	-	-
5107	-	-	+/-	-	-	-	-
5108	-	-	+/-	-	-	+/-	-
5109	-	-	+/-	-	-	-	-
5110	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
6106	-	-	+/-	-	-	-	-
6107	-	-	+/-	-	-	-	-
6108	-	-	+/-	-	-	-	-
6109	-	-	+/-	-	-	-	-
6110	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
5106	32	6.2	2098	0.9	1.8	1.2
5107	27	9.4	1698	0.8	2.4	1.1
5108	36	4.3	2580	0.5	1.6	0.9
5109	28	8.6	1790	0.9	2.3	1.3
5110	37	12.3	1444	0.9	2.7	1.4
n	5	5	5	5	5	5
Mean	32	8.2	1922	0.8	2.2	1.2
S.D.	5	3.1	436	0.2	0.5	0.2

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
6106	30	11.4	1652	1.4	2.6	1.5
6107	36	8.5	1800	0.7	2.1	1.2
6108	25	5.3	2404	0.6	1.8	0.9
6109	33	21.4	1254	1.8	4.0	2.6
6110	30	7.6	1860	0.9	2.1	1.2
n	5	5	5	5	5	5
Mean	31	10.8	1794	1.1	2.5	1.5
S.D.	4	6.3	415	0.5	0.9	0.7

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
1008	8.5	+/-	+/-	-	+/-	-	+/-	Y
1009	8.0	+/-	+/-	-	+/-	-	+/-	Y
1010	8.5	+/-	+/-	-	-	-	+/-	Y
1011	8.5	-	-	-	-	-	+/-	Y
1012	8.5	-	+/-	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
4008	8.0	+/-	1+	-	-	-	+/-	Y
4009	8.5	-	+/-	-	+/-	-	+/-	Y
4010	8.5	-	+/-	-	-	-	+/-	Y
4011	8.5	-	-	-	-	-	+/-	Y
4012	8.5	+/-	+/-	-	+/-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
1008	-	-	+/-	-	-	-	-
1009	-	-	+/-	-	-	+/-	-
1010	-	-	+/-	-	-	+/-	-
1011	-	-	+/-	-	-	+/-	-
1012	-	-	+/-	-	-	+/-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
4008	-	-	+/-	-	-	+/-	-
4009	-	-	+/-	-	-	+/-	-
4010	-	-	+/-	+/-	-	+/-	-
4011	-	-	+/-	-	-	+/-	-
4012	-	-	+/-	-	-	+/-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
1008	39	19.8	1556	2.1	4.4	2.6
1009	45	25.0	2114	2.6	8.0	4.0
1010	50	16.5	2072	1.7	5.5	2.7
1011	40	15.3	1938	2.0	4.5	2.6
1012	54	16.9	1524	1.7	3.7	2.1
n	5	5	5	5	5	5
Mean	46	18.7	1841	2.0	5.2	2.8
S.D.	6	3.9	282	0.4	1.7	0.7

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
4008	38	12.3	2560	1.8	4.7	2.4
4009	42	20.0	2018	2.4	6.0	3.0
4010	50	21.0	1644	2.0	5.0	2.5
4011	45	19.2	1972	2.2	5.9	3.0
4012	49	19.4	1896	1.6	5.8	2.7
n	5	5	5	5	5	5
Mean	45	18.4	2018	2.0	5.5	2.7
S.D.	5	3.5	336	0.3	0.6	0.3

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 25 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
5106	8.5	-	-	-	-	-	+/-	Y
5107	8.5	-	-	-	-	-	+/-	Y
5108	8.5	-	-	-	-	-	+/-	Y
5109	7.0	-	-	-	-	-	+/-	Y
5110	8.5	-	-	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 26 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
6106	8.5	-	-	-	-	-	+/-	Y
6107	8.5	-	-	-	-	-	+/-	Y
6108	7.0	-	-	-	-	-	+/-	Y
6109	7.0	-	-	-	-	-	+/-	Y
6110	7.0	-	-	-	-	-	+/-	Y
n	5	5	5	5	5	5	5	5

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL
Glucose) -:Negative , 1+:100 , 2+:250 , 3+:500 , 4+:≥1000 mg/dL
Occult Blood) -:Negative , +/-:0.015 , 1+:0.062 , 2+:0.135 , 3+:0.405 mg/dL
Bilirubin) -:Negative , 1+:0.8 , 2+:1.6 , 3+:3.2 mg/dL
Urobilinogen) +/-:0.1 - 1.0 , 1+:2.0 , 2+:4.0 , 3+:≥8.0 Ehrlich U/dL
Color LY: Light Yellow Y: Yellow DY: Dark Yellow BR: Brown RE: Red RB: Reddish brown WH: White BL: Blue CL: Colorless OT: Other
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Urinalysis

Stage : Week 2 of recovery

Sex : Female

Dose : hexaoxanon 0 mg/kg

Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
5106	-	-	+/-	-	-	-	-
5107	-	-	+/-	-	-	+/-	-
5108	-	-	+/-	-	-	+/-	-
5109	-	-	+/-	-	-	-	-
5110	-	-	+/-	-	-	+/-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 28 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC	WBC	Squamous epithelial cells	Small round epithelial cells	Cast	Crystal phosphate salts	Crystal calcium oxalate
6106	-	-	+/-	-	-	-	-
6107	-	-	+/-	-	-	+/-	-
6108	-	-	+/-	-	-	-	-
6109	-	-	+/-	-	-	-	-
6110	-	-	+/-	-	-	-	-
n	5	5	5	5	5	5	5

RBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
WBC) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Squamous epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Small round epithelial cells) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Cast) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal phosphate salts) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
Crystal calcium oxalate) -:Negative , +/-:Slight , 1+:Mild , 2+:Moderate , 3+:Severe
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 29 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
5106	36	10.6	2054	1.3	3.5	1.8
5107	27	6.0	2286	0.6	1.9	0.6
5108	31	9.2	2706	1.3	3.9	1.9
5109	33	7.9	2408	1.0	2.8	1.3
5110	38	12.7	1776	1.2	3.5	1.7
n	5	5	5	5	5	5
Mean	33	9.3	2246	1.1	3.1	1.5
S.D.	4	2.6	353	0.3	0.8	0.5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 5 - 30 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Water consumption mL/24h	Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
6106	47	17.4	1470	1.6	3.9	2.3
6107	43	11.5	1640	1.0	3.0	1.2
6108	26	5.7	2556	0.9	2.1	1.1
6109	39	16.3	1566	1.4	3.7	2.0
6110	46	12.2	1812	1.1	3.3	1.7
n	5	5	5	5	5	5
Mean	40	12.6	1809	1.2	3.2	1.7
S.D.	9	4.6	436	0.3	0.7	0.5

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
1001	875	15.1	44.7	51.0	17.2	33.7	1.8	95.5	69.9	80.3	14.8
1002	893	15.5	46.5	52.1	17.4	33.3	2.5	78.7	83.9	71.6	23.5
1003	859	15.0	44.8	52.1	17.4	33.4	2.1	92.3	97.9	67.3	28.6
1004	897	15.6	48.6	54.2	17.4	32.1	1.7	94.0	120.2	87.2	10.1
1005	897	15.6	47.2	52.7	17.4	33.1	1.9	104.0	66.4	71.9	22.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	884	15.4	46.4	52.4	17.4	33.1	2.0	92.9	87.7	75.7	19.8
S.D.	17	0.3	1.7	1.2	0.1	0.6	0.3	9.1	22.1	8.0	7.3

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
1001	1.1	0.4	2.1	1.2	56.1	10.4	0.8	0.3	1.5	0.8	12.1
1002	1.8	0.5	1.6	1.0	60.1	19.7	1.6	0.4	1.3	0.8	11.9
1003	1.8	0.4	1.7	0.2	65.9	28.0	1.7	0.4	1.6	0.2	12.4
1004	0.7	0.5	0.8	0.7	104.8	12.1	0.9	0.6	1.0	0.8	11.9
1005	1.7	0.4	2.8	0.9	47.8	14.8	1.2	0.3	1.9	0.6	13.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.4	0.4	1.8	0.8	66.9	17.0	1.2	0.4	1.5	0.6	12.3
S.D.	0.5	0.1	0.7	0.4	22.2	7.1	0.4	0.1	0.3	0.3	0.5

Animal No.	APTT s	FIB mg/dL
1001	19.4	240
1002	16.3	255
1003	16.3	241
1004	17.0	217
1005	19.6	245
n	5	5
Mean	17.7	240
S.D.	1.7	14

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
2001	836	15.4	44.3	53.0	18.4	34.7	2.4	81.9	62.2	64.5	31.1
2002	851	15.1	44.8	52.7	17.8	33.8	2.7	103.2	91.5	80.3	14.8
2003	912	15.3	45.7	50.1	16.7	33.4	2.0	91.3	80.3	78.8	16.3
2004	835	14.3	42.5	50.9	17.2	33.7	1.8	86.2	51.1	73.4	21.8
2005	906	14.7	44.1	48.7	16.2	33.3	1.7	99.3	82.3	81.2	15.6
n	5	5	5	5	5	5	5	5	5	5	5
Mean	868	15.0	44.3	51.1	17.3	33.8	2.1	92.4	73.5	75.6	19.9
S.D.	38	0.5	1.2	1.8	0.9	0.6	0.4	8.9	16.4	6.9	6.8

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
2001	1.5	0.3	2.4	0.3	40.1	19.4	0.9	0.2	1.5	0.2	11.9
2002	1.8	0.7	1.8	0.6	73.5	13.6	1.7	0.6	1.7	0.5	12.3
2003	2.0	0.4	1.4	1.0	63.3	13.1	1.6	0.4	1.1	0.8	12.9
2004	1.7	0.5	1.9	0.8	37.5	11.1	0.9	0.2	1.0	0.4	12.0
2005	0.4	1.0	1.2	0.6	66.8	12.9	0.4	0.8	1.0	0.5	14.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.5	0.6	1.7	0.7	56.2	14.0	1.1	0.4	1.3	0.5	12.6
S.D.	0.6	0.3	0.5	0.3	16.4	3.2	0.5	0.3	0.3	0.2	0.9

Animal No.	APTT s	FIB mg/dL
2001	18.1	205
2002	15.9	285
2003	18.2	227
2004	19.5	231
2005	18.4	259
n	5	5
Mean	18.0	241
S.D.	1.3	31

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
3001	856	15.3	46.6	54.4	17.9	32.9	2.4	88.3	84.5	70.3	24.8
3002	888	15.4	46.5	52.4	17.4	33.1	2.5	110.2	84.8	69.0	26.3
3003	882	15.1	45.2	51.3	17.1	33.3	1.7	89.4	62.8	75.0	21.3
3004	857	14.9	44.1	51.5	17.4	33.7	1.8	102.3	67.9	73.2	23.9
3005	848	14.8	44.3	52.2	17.4	33.4	2.3	99.8	117.1	79.1	16.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	866	15.1	45.3	52.4	17.4	33.3	2.1	98.0	83.4	73.3	22.5
S.D.	18	0.3	1.2	1.2	0.3	0.3	0.4	9.2	21.2	4.0	4.0

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
3001	1.6	0.4	2.5	0.4	59.4	20.9	1.4	0.3	2.1	0.3	11.7
3002	1.8	0.4	2.1	0.3	58.5	22.3	1.5	0.3	1.8	0.3	11.8
3003	1.8	0.4	1.1	0.4	47.1	13.4	1.1	0.3	0.7	0.3	13.4
3004	1.2	0.4	1.0	0.3	49.8	16.2	0.8	0.3	0.7	0.2	13.2
3005	1.6	0.5	1.4	1.1	92.6	19.0	1.9	0.6	1.6	1.3	12.1
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.6	0.4	1.6	0.5	61.5	18.4	1.3	0.4	1.4	0.5	12.4
S.D.	0.2	0.0	0.7	0.3	18.2	3.6	0.4	0.1	0.6	0.5	0.8

Animal No.	APTT s	FIB mg/dL
3001	16.8	252
3002	17.5	260
3003	17.5	217
3004	23.3	205
3005	17.5	242
n	5	5
Mean	18.5	235
S.D.	2.7	23

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
4001	870	15.4	45.9	52.8	17.7	33.5	1.9	108.1	62.2	78.9	16.2
4002	831	14.8	43.3	52.0	17.8	34.2	2.4	89.8	67.5	82.9	14.1
4003	825	15.1	44.6	54.1	18.3	33.8	1.8	94.1	36.8	81.0	15.5
4004	865	14.9	44.9	51.9	17.2	33.2	1.7	90.3	65.9	67.5	28.4
4005	890	15.2	46.9	52.7	17.1	32.5	1.6	97.0	86.8	73.5	22.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	856	15.1	45.1	52.7	17.6	33.4	1.9	95.9	63.8	76.8	19.3
S.D.	27	0.2	1.4	0.9	0.5	0.6	0.3	7.4	17.9	6.3	6.0

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
4001	2.5	0.5	1.5	0.4	49.1	10.1	1.6	0.3	0.9	0.3	13.4
4002	0.9	0.3	1.5	0.4	55.9	9.5	0.6	0.2	1.0	0.3	11.1
4003	1.6	0.4	1.1	0.4	29.8	5.7	0.6	0.1	0.4	0.1	12.5
4004	2.1	0.4	1.3	0.4	44.5	18.7	1.4	0.2	0.8	0.3	12.7
4005	1.2	0.6	1.3	1.0	63.8	19.5	1.1	0.5	1.1	0.9	12.6
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.7	0.4	1.3	0.5	48.6	12.7	1.1	0.3	0.8	0.4	12.5
S.D.	0.7	0.1	0.2	0.3	12.8	6.1	0.5	0.2	0.3	0.3	0.8

Animal No.	APTT s	FIB mg/dL
4001	19.0	235
4002	17.5	261
4003	18.8	215
4004	14.2	238
4005	17.6	285
n	5	5
Mean	17.4	247
S.D.	1.9	27

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
1101	722	14.1	43.4	60.1	19.6	32.5	7.6	91.3	74.0	59.4	35.5
1103	631	12.6	38.2	60.5	20.0	33.0	7.9	153.7	71.7	86.3	9.3
1105	708	13.7	41.5	58.6	19.4	33.1	7.0	130.8	71.0	75.6	20.4
1107	689	12.9	38.7	56.1	18.8	33.5	5.9	93.8	73.1	61.6	35.2
1110	667	12.9	38.7	57.9	19.3	33.4	9.2	156.7	84.7	57.8	37.9
n	5	5	5	5	5	5	5	5	5	5	5
Mean	683	13.2	40.1	58.6	19.4	33.1	7.5	125.3	74.9	68.1	27.7
S.D.	36	0.6	2.3	1.8	0.4	0.4	1.2	31.5	5.6	12.4	12.4

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
1101	0.8	0.3	3.6	0.3	44.0	26.3	0.6	0.2	2.7	0.2	12.1
1103	1.0	0.3	2.3	0.9	61.9	6.6	0.7	0.2	1.7	0.6	12.6
1105	0.5	0.3	2.7	0.5	53.7	14.5	0.4	0.2	1.9	0.4	11.3
1107	0.4	0.3	2.3	0.2	45.0	25.7	0.3	0.2	1.7	0.2	12.5
1110	1.4	0.2	2.2	0.6	48.9	32.1	1.2	0.1	1.8	0.5	11.5
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.8	0.3	2.6	0.5	50.7	21.0	0.6	0.2	2.0	0.4	12.0
S.D.	0.4	0.0	0.6	0.3	7.3	10.3	0.4	0.0	0.4	0.2	0.6

Animal No.	APTT s	FIB mg/dL
1101	13.7	276
1103	15.9	347
1105	11.4	261
1107	16.2	266
1110	15.4	302
n	5	5
Mean	14.5	290
S.D.	2.0	35

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
2102	724	13.0	38.8	53.6	17.9	33.4	5.8	119.9	127.6	59.8	35.9
2106	722	14.3	42.9	59.4	19.7	33.2	6.4	132.6	127.3	53.1	42.9
2107	705	13.3	40.0	56.7	18.9	33.4	7.1	132.0	84.4	86.5	10.6
2111	730	14.4	42.1	57.6	19.7	34.2	5.2	118.5	114.5	66.3	26.8
2112	707	13.7	41.4	58.6	19.4	33.2	5.7	143.3	124.3	61.0	35.1
n	5	5	5	5	5	5	5	5	5	5	5
Mean	718	13.7	41.0	57.2	19.1	33.5	6.0	129.3	115.6	65.3	30.3
S.D.	11	0.6	1.6	2.2	0.8	0.4	0.7	10.2	18.2	12.7	12.4

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
2102	0.6	0.3	2.7	0.7	76.3	45.8	0.8	0.3	3.4	0.9	11.7
2106	0.6	0.4	2.7	0.4	67.5	54.7	0.7	0.5	3.4	0.5	12.4
2107	0.6	0.3	1.2	0.9	73.0	9.0	0.5	0.2	1.0	0.7	11.2
2111	0.6	0.6	4.1	1.6	75.9	30.7	0.6	0.7	4.7	1.8	12.6
2112	0.4	0.3	3.1	0.2	75.9	43.6	0.5	0.3	3.8	0.2	12.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.6	0.4	2.8	0.8	73.7	36.8	0.6	0.4	3.3	0.8	12.0
S.D.	0.1	0.1	1.0	0.5	3.7	17.7	0.1	0.2	1.4	0.6	0.6

Animal No.	APTT s	FIB mg/dL
2102	13.9	315
2106	14.6	270
2107	14.8	364
2111	16.0	273
2112	16.3	262
n	5	5
Mean	15.1	297
S.D.	1.0	43

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
3101	726	13.5	40.8	56.2	18.6	33.1	5.3	139.6	79.3	62.0	33.4
3107	765	14.6	43.3	56.7	19.1	33.7	6.3	104.3	111.5	77.6	16.6
3109	645	13.1	38.3	59.5	20.3	34.2	7.4	141.6	119.1	70.1	26.0
3110	599	12.9	39.0	65.2	21.5	33.0	10.0	117.6	134.4	65.0	30.5
3111	646	12.4	37.1	57.3	19.2	33.5	7.8	125.1	74.2	56.8	40.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	676	13.3	39.7	59.0	19.7	33.5	7.4	125.6	103.7	66.3	29.4
S.D.	67	0.8	2.4	3.7	1.2	0.5	1.8	15.6	26.0	7.9	8.9

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
3101	1.3	0.3	2.6	0.4	49.2	26.5	1.0	0.3	2.1	0.3	12.3
3107	0.6	0.4	3.7	1.0	86.5	18.5	0.7	0.5	4.2	1.1	12.0
3109	0.6	0.3	2.5	0.5	83.5	30.9	0.8	0.4	3.0	0.6	13.5
3110	0.5	0.3	2.8	0.8	87.4	41.0	0.7	0.5	3.8	1.0	12.2
3111	0.6	0.4	1.2	0.5	42.2	30.0	0.5	0.3	0.9	0.4	12.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.7	0.3	2.6	0.6	69.8	29.4	0.7	0.4	2.8	0.7	12.4
S.D.	0.3	0.1	0.9	0.3	22.1	8.1	0.2	0.1	1.3	0.4	0.6

Animal No.	APTT s	FIB mg/dL
3101	15.4	220
3107	14.8	233
3109	16.6	333
3110	16.1	240
3111	16.7	253
n	5	5
Mean	15.9	256
S.D.	0.8	45

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
4102	689	12.8	38.2	55.5	18.6	33.5	7.0	134.5	71.8	73.0	23.4
4103	597	12.1	36.2	60.6	20.2	33.4	9.7	108.6	133.9	67.7	29.1
4106	698	13.1	39.6	56.7	18.8	33.1	7.7	145.7	100.0	48.8	48.8
4110	729	14.2	41.8	57.3	19.5	34.0	3.2	117.5	72.9	72.0	21.8
4111	684	13.1	39.1	57.2	19.1	33.5	5.1	139.4	82.2	72.3	23.6
n	5	5	5	5	5	5	5	5	5	5	5
Mean	679	13.1	39.0	57.5	19.2	33.5	6.5	129.1	92.2	66.8	29.3
S.D.	49	0.8	2.0	1.9	0.6	0.3	2.5	15.5	25.9	10.3	11.2

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
4102	0.7	0.2	2.1	0.6	52.5	16.8	0.5	0.2	1.5	0.4	12.9
4103	0.6	0.3	1.7	0.7	90.6	38.9	0.8	0.4	2.3	0.9	12.2
4106	0.4	0.2	1.5	0.3	48.8	48.7	0.4	0.2	1.5	0.3	13.1
4110	1.4	0.5	3.6	0.6	52.5	15.9	1.1	0.4	2.6	0.5	12.9
4111	1.0	0.3	2.2	0.6	59.4	19.4	0.9	0.3	1.8	0.5	11.7
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.8	0.3	2.2	0.6	60.8	27.9	0.7	0.3	1.9	0.5	12.6
S.D.	0.4	0.1	0.8	0.2	17.1	14.9	0.3	0.1	0.5	0.2	0.6

Animal No.	APTT s	FIB mg/dL
4102	15.6	303
4103	15.9	305
4106	20.1	257
4110	17.8	324
4111	14.7	242
n	5	5
Mean	16.8	286
S.D.	2.2	35

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
5101	832	14.8	43.2	51.9	17.8	34.2	2.1	108.2	55.5	84.5	10.4
5102	796	14.3	41.6	52.2	17.9	34.3	2.3	101.2	48.9	67.9	28.4
5103	790	15.3	43.1	54.5	19.4	35.6	1.9	105.2	35.4	71.1	23.2
5104	783	15.1	43.1	55.1	19.3	35.0	2.3	103.3	62.0	76.6	19.6
5105	765	14.6	42.3	55.3	19.1	34.5	2.3	120.4	50.2	70.1	25.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	793	14.8	42.7	53.8	18.7	34.7	2.2	107.7	50.4	74.0	21.4
S.D.	25	0.4	0.7	1.6	0.8	0.6	0.2	7.6	9.8	6.7	6.9

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
5101	2.2	0.3	1.4	1.1	46.9	5.8	1.2	0.2	0.8	0.6	12.6
5102	1.0	0.4	1.5	0.8	33.2	13.9	0.5	0.2	0.7	0.4	12.1
5103	2.5	0.3	2.2	0.6	25.1	8.2	0.9	0.1	0.8	0.2	11.3
5104	1.2	0.4	1.7	0.5	47.5	12.1	0.7	0.3	1.1	0.3	12.1
5105	1.5	0.4	2.3	0.4	35.2	12.7	0.8	0.2	1.2	0.2	13.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.7	0.4	1.8	0.7	37.6	10.5	0.8	0.2	0.9	0.3	12.2
S.D.	0.6	0.1	0.4	0.3	9.6	3.4	0.3	0.1	0.2	0.2	0.6

Animal No.	APTT s	FIB mg/dL
5101	16.8	209
5102	14.8	203
5103	17.7	173
5104	16.2	272
5105	16.3	213
n	5	5
Mean	16.4	214
S.D.	1.1	36

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
6101	787	14.9	42.4	53.8	19.0	35.3	1.9	88.1	76.2	87.1	8.8
6102	764	14.7	43.0	56.3	19.2	34.2	2.8	104.2	59.7	77.0	18.2
6103	789	15.1	44.9	56.9	19.1	33.6	2.1	107.2	59.0	84.8	11.9
6104	796	15.0	43.3	54.4	18.8	34.6	1.7	105.4	66.0	80.8	13.2
6105	738	14.4	42.3	57.4	19.5	34.0	2.2	96.7	43.2	81.7	14.7
n	5	5	5	5	5	5	5	5	5	5	5
Mean	775	14.8	43.2	55.8	19.1	34.3	2.1	100.3	60.8	82.3	13.4
S.D.	24	0.3	1.0	1.6	0.3	0.6	0.4	7.9	12.0	3.9	3.5

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
6101	0.6	0.6	1.7	1.2	66.3	6.7	0.5	0.5	1.3	0.9	12.3
6102	2.1	0.3	1.8	0.6	46.0	10.8	1.3	0.2	1.1	0.4	11.4
6103	1.0	0.4	0.9	0.9	50.0	7.0	0.6	0.2	0.5	0.6	12.9
6104	1.5	0.8	2.3	1.3	53.4	8.7	1.0	0.5	1.5	0.9	12.2
6105	1.1	0.4	1.6	0.4	35.3	6.4	0.5	0.2	0.7	0.2	12.8
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.3	0.5	1.7	0.9	50.2	7.9	0.8	0.3	1.0	0.6	12.3
S.D.	0.6	0.2	0.5	0.4	11.3	1.8	0.4	0.2	0.4	0.3	0.6

Animal No.	APTT s	FIB mg/dL
6101	17.1	177
6102	15.5	180
6103	16.1	221
6104	16.0	172
6105	16.0	179
n	5	5
Mean	16.1	186
S.D.	0.6	20

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
1008	940	15.6	47.0	50.0	16.5	33.1	1.6	84.5	54.7	82.7	12.2
1009	896	15.6	47.4	52.9	17.5	33.0	1.8	86.3	101.1	73.8	21.6
1010	874	15.9	48.0	54.9	18.2	33.2	2.2	102.8	74.7	75.0	19.6
1011	908	15.1	44.6	49.1	16.6	33.8	1.8	111.4	59.0	74.8	20.5
1012	903	14.7	44.7	49.5	16.3	32.9	1.7	99.1	56.0	77.8	18.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	904	15.4	46.3	51.3	17.0	33.2	1.8	96.8	69.1	76.8	18.5
S.D.	24	0.5	1.6	2.5	0.8	0.4	0.2	11.4	19.6	3.6	3.7

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
1008	2.2	0.6	1.5	0.8	45.2	6.7	1.2	0.3	0.8	0.4	12.0
1009	1.7	0.5	2.0	0.4	74.6	21.9	1.7	0.5	2.0	0.4	11.8
1010	3.1	0.3	1.6	0.4	56.0	14.6	2.3	0.2	1.2	0.3	11.8
1011	2.6	0.2	1.5	0.4	44.2	12.1	1.5	0.1	0.9	0.3	11.8
1012	1.9	0.3	1.3	0.4	43.6	10.3	1.1	0.2	0.7	0.2	13.7
n	5	5	5	5	5	5	5	5	5	5	5
Mean	2.3	0.4	1.6	0.5	52.7	13.1	1.6	0.3	1.1	0.3	12.2
S.D.	0.6	0.2	0.3	0.2	13.2	5.7	0.5	0.2	0.5	0.1	0.8

Animal No.	APTT s	FIB mg/dL
1008	19.1	252
1009	17.1	227
1010	21.5	262
1011	15.9	245
1012	18.8	239
n	5	5
Mean	18.5	245
S.D.	2.1	13

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
4008	857	15.2	46.4	54.1	17.8	32.8	2.5	95.3	63.6	80.8	14.1
4009	861	14.5	43.8	50.9	16.9	33.1	2.4	93.4	107.0	81.1	15.5
4010	876	15.3	45.1	51.5	17.4	33.8	1.8	88.0	66.5	77.9	15.8
4011	875	15.0	45.1	51.5	17.1	33.3	2.3	92.7	74.9	73.3	21.9
4012	832	14.8	43.7	52.5	17.8	34.0	1.8	98.5	102.1	78.8	17.1
n	5	5	5	5	5	5	5	5	5	5	5
Mean	860	15.0	44.8	52.1	17.4	33.4	2.2	93.6	82.8	78.4	16.9
S.D.	18	0.3	1.1	1.3	0.4	0.5	0.3	3.8	20.3	3.1	3.0

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
4008	1.7	0.4	2.5	0.5	51.4	9.0	1.1	0.2	1.6	0.3	11.8
4009	1.0	0.4	1.4	0.6	86.7	16.6	1.0	0.5	1.5	0.6	11.6
4010	2.3	0.2	2.6	1.2	51.8	10.5	1.5	0.1	1.7	0.8	12.2
4011	2.3	0.3	1.8	0.3	54.9	16.4	1.7	0.2	1.4	0.2	11.8
4012	1.5	0.3	1.4	1.0	80.5	17.4	1.5	0.3	1.4	1.0	12.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.8	0.3	1.9	0.7	65.1	14.0	1.4	0.3	1.5	0.6	11.9
S.D.	0.6	0.1	0.6	0.4	17.1	3.9	0.3	0.2	0.1	0.3	0.3

Animal No.	APTT s	FIB mg/dL
4008	19.8	230
4009	18.0	254
4010	22.3	251
4011	19.6	273
4012	19.2	227
n	5	5
Mean	19.8	247
S.D.	1.6	19

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
5106	778	14.6	43.4	55.8	18.8	33.7	2.5	95.5	31.6	85.5	11.1
5107	729	14.5	40.4	55.5	19.9	35.9	1.7	110.5	71.2	76.2	19.1
5108	826	15.0	44.4	53.8	18.1	33.7	1.8	85.0	34.9	79.7	16.0
5109	756	14.0	41.3	54.6	18.6	34.0	2.0	107.5	46.9	80.5	13.7
5110	805	15.0	43.2	53.7	18.6	34.7	1.9	112.7	19.8	86.0	10.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	779	14.6	42.5	54.7	18.8	34.4	2.0	102.2	40.9	81.6	14.0
S.D.	38	0.4	1.6	1.0	0.7	0.9	0.3	11.7	19.5	4.1	3.6

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
5106	1.0	0.4	1.4	0.6	27.0	3.5	0.3	0.1	0.4	0.2	11.9
5107	1.4	0.3	2.3	0.8	54.2	13.6	1.0	0.2	1.7	0.6	11.6
5108	2.1	0.2	1.5	0.6	27.8	5.6	0.7	0.1	0.5	0.2	11.7
5109	2.4	0.3	2.3	0.8	37.8	6.4	1.1	0.2	1.1	0.4	10.5
5110	1.7	0.2	1.7	0.2	17.0	2.0	0.3	0.0	0.3	0.0	11.5
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.7	0.3	1.8	0.6	32.8	6.2	0.7	0.1	0.8	0.3	11.4
S.D.	0.6	0.1	0.4	0.2	14.1	4.5	0.4	0.1	0.6	0.2	0.5

Animal No.	APTT s	FIB mg/dL
5106	14.8	179
5107	12.3	208
5108	18.3	163
5109	12.4	161
5110	16.1	188
n	5	5
Mean	14.8	180
S.D.	2.5	19

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : End of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
6106	795	15.1	44.6	56.2	19.0	33.7	2.8	97.1	41.0	75.8	20.0
6107	784	14.6	42.5	54.2	18.7	34.5	2.3	99.3	37.0	70.9	24.7
6108	782	15.0	43.0	55.0	19.1	34.8	2.0	95.6	51.8	75.3	20.5
6109	817	14.7	42.7	52.2	18.0	34.5	1.7	105.8	58.4	77.1	17.5
6110	800	15.2	43.5	54.4	19.0	35.0	2.4	99.7	41.1	86.7	10.6
n	5	5	5	5	5	5	5	5	5	5	5
Mean	796	14.9	43.3	54.4	18.8	34.5	2.2	99.5	45.9	77.2	18.7
S.D.	14	0.3	0.8	1.5	0.5	0.5	0.4	3.9	8.9	5.8	5.2

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
6106	1.7	0.4	1.4	0.8	31.1	8.2	0.7	0.2	0.6	0.3	11.0
6107	2.0	0.3	1.7	0.3	26.2	9.1	0.7	0.1	0.6	0.1	11.2
6108	1.0	0.2	2.0	0.9	39.0	10.6	0.5	0.1	1.0	0.5	11.3
6109	2.9	0.2	1.6	0.6	45.0	10.2	1.7	0.1	0.9	0.4	11.6
6110	1.1	0.3	0.9	0.3	35.6	4.4	0.4	0.1	0.4	0.1	12.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.7	0.3	1.5	0.6	35.4	8.5	0.8	0.1	0.7	0.3	11.5
S.D.	0.8	0.1	0.4	0.3	7.2	2.5	0.5	0.0	0.2	0.2	0.5

Animal No.	APTT s	FIB mg/dL
6106	15.2	181
6107	14.4	181
6108	16.7	182
6109	12.0	188
6110	17.6	182
n	5	5
Mean	15.2	183
S.D.	2.2	3

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : All littermates died

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP	NEUT
Animal No.	10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%	%
4109	350	6.0	18.4	52.4	17.2	32.8	6.9	110.0	216.7	49.0	46.4
n	1	1	1	1	1	1	1	1	1	1	1
Mean	350	6.0	18.4	52.4	17.2	32.8	6.9	110.0	216.7	49.0	46.4
S.D.											

	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO	#LUC	PT
Animal No.	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	s
4109	0.7	0.2	3.2	0.5	106.2	100.5	1.5	0.5	6.9	1.1	9.6
n	1	1	1	1	1	1	1	1	1	1	1
Mean	0.7	0.2	3.2	0.5	106.2	100.5	1.5	0.5	6.9	1.1	9.6
S.D.											

	APTT	FIB
Animal No.	s	mg/dL
4109	11.9	290
n	1	1
Mean	11.9	290
S.D.		

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Not copulated

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	RBC $10^4/\mu L$	HGB g/dL	HCT %	MCV fL	MCH pg	MCHC g/dL	RETIC %	PLT $10^4/\mu L$	WBC $10^2/\mu L$	LYMP %	NEUT %
2101	800	15.8	44.7	55.8	19.7	35.3	2.7	104.1	73.0	79.9	14.5
n	1	1	1	1	1	1	1	1	1	1	1
Mean	800	15.8	44.7	55.8	19.7	35.3	2.7	104.1	73.0	79.9	14.5
S.D.											

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP $10^2/\mu L$	#NEUT $10^2/\mu L$	#EOS $10^2/\mu L$	#BASO $10^2/\mu L$	#MONO $10^2/\mu L$	#LUC $10^2/\mu L$	PT s
2101	2.0	0.3	2.8	0.5	58.3	10.6	1.4	0.2	2.1	0.4	12.8
n	1	1	1	1	1	1	1	1	1	1	1
Mean	2.0	0.3	2.8	0.5	58.3	10.6	1.4	0.2	2.1	0.4	12.8
S.D.											

Animal No.	APTT s	FIB mg/dL
2101	14.4	194
n	1	1
Mean	14.4	194
S.D.		

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Undelivered

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP	NEUT
Animal No.	10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%	%
1109	786	14.5	43.4	55.2	18.4	33.4	1.6	92.9	70.8	82.7	12.4
n	1	1	1	1	1	1	1	1	1	1	1
Mean	786	14.5	43.4	55.2	18.4	33.4	1.6	92.9	70.8	82.7	12.4
S.D.											

	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO	#LUC	PT
Animal No.	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	s
1109	1.4	0.4	1.9	1.1	58.5	8.8	1.0	0.3	1.4	0.8	13.6
n	1	1	1	1	1	1	1	1	1	1	1
Mean	1.4	0.4	1.9	1.1	58.5	8.8	1.0	0.3	1.4	0.8	13.6
S.D.											

	APTT	FIB
Animal No.	s	mg/dL
1109	14.5	201
n	1	1
Mean	14.5	201
S.D.		

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 6 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Hematology Stage : Undelivered

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP	NEUT
Animal No.	10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%	%
4104	766	14.3	41.5	54.2	18.7	34.5	1.5	115.0	76.0	74.4	21.6
n	1	1	1	1	1	1	1	1	1	1	1
Mean	766	14.3	41.5	54.2	18.7	34.5	1.5	115.0	76.0	74.4	21.6
S.D.											

	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO	#LUC	PT
Animal No.	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL	s
4104	1.1	0.4	2.1	0.4	56.6	16.4	0.9	0.3	1.6	0.3	12.3
n	1	1	1	1	1	1	1	1	1	1	1
Mean	1.1	0.4	2.1	0.4	56.6	16.4	0.9	0.3	1.6	0.3	12.3
S.D.											

	APTT	FIB
Animal No.	s	mg/dL
4104	14.4	206
n	1	1
Mean	14.4	206
S.D.		

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
1001	56	37	41	0	396	19.8	45	25	80	0.1	140
1002	87	64	60	0	446	34.1	64	27	95	0.1	146
1003	85	52	94	1	451	32.6	54	44	88	0.1	140
1004	52	32	38	0	444	42.0	52	20	85	0.1	123
1005	66	45	59	0	375	27.2	39	22	66	0.1	132
n	5	5	5	5	5	5	5	5	5	5	5
Mean	69	46	58	0	422	31.1	51	28	83	0.1	136
S.D.	16	13	22	0	35	8.3	9	10	11	0.0	9

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
1001	16	0.26	140	4.9	104	9.4	5.8	5.7	3.0	1.1
1002	19	0.29	145	4.5	107	10.1	6.1	5.9	3.3	1.3
1003	14	0.24	144	4.8	106	9.8	5.9	5.9	3.1	1.1
1004	16	0.26	145	4.5	108	10.2	7.3	5.9	3.4	1.4
1005	14	0.28	144	5.0	108	10.0	6.8	6.3	3.4	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	16	0.27	144	4.7	107	9.9	6.4	5.9	3.2	1.2
S.D.	2	0.02	2	0.2	2	0.3	0.6	0.2	0.2	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
2001	58	36	28	1	439	8.4	49	16	78	0.1	137
2002	50	39	45	0	436	12.8	81	81	119	0.1	137
2003	72	44	35	0	418	7.7	53	30	85	0.1	132
2004	56	45	32	1	310	11.1	47	13	73	0.1	147
2005	48	33	39	1	459	12.8	49	18	76	0.1	134
n	5	5	5	5	5	5	5	5	5	5	5
Mean	57	39	36	1	412	10.6	56	32	86	0.1	137
S.D.	9	5	7	1	59	2.4	14	28	19	0.0	6

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
2001	16	0.32	142	4.6	104	9.6	5.6	5.5	3.0	1.2
2002	13	0.24	144	4.6	104	10.0	5.6	6.1	3.2	1.1
2003	16	0.29	144	4.4	108	10.1	6.5	5.7	3.1	1.2
2004	17	0.33	144	4.6	105	9.5	6.1	5.9	3.1	1.1
2005	14	0.24	143	4.6	106	9.9	7.1	5.6	3.1	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	15	0.28	143	4.6	105	9.8	6.2	5.8	3.1	1.2
S.D.	2	0.04	1	0.1	2	0.3	0.6	0.2	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
3001	72	41	59	0	361	19.3	70	77	119	0.1	145
3002	59	44	65	1	435	21.9	57	35	91	0.1	150
3003	71	46	47	0	636	8.6	52	41	81	0.1	126
3004	58	41	30	0	493	7.1	42	13	69	0.1	137
3005	65	45	44	1	598	10.5	39	20	66	0.1	144
n	5	5	5	5	5	5	5	5	5	5	5
Mean	65	43	49	0	505	13.5	52	37	85	0.1	140
S.D.	7	2	14	1	114	6.7	12	25	21	0.0	9

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
3001	14	0.23	144	4.1	105	9.9	5.8	6.3	3.1	1.0
3002	16	0.26	143	4.3	104	9.9	6.1	5.8	3.2	1.2
3003	16	0.30	142	4.2	106	9.3	5.5	5.6	3.1	1.2
3004	13	0.27	144	4.3	108	9.5	5.4	5.8	3.0	1.1
3005	14	0.24	143	4.6	106	9.8	6.1	5.7	3.0	1.1
n	5	5	5	5	5	5	5	5	5	5
Mean	15	0.26	143	4.3	106	9.7	5.8	5.8	3.1	1.1
S.D.	1	0.03	1	0.2	1	0.3	0.3	0.3	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
4001	69	44	68	0	409	11.9	48	28	82	0.1	138
4002	57	45	43	1	357	11.4	66	26	102	0.1	127
4003	59	27	40	0	364	6.3	51	11	72	0.1	133
4004	60	38	41	1	454	18.5	55	35	92	0.1	135
4005	68	38	38	2	368	11.2	79	31	107	0.1	127
n	5	5	5	5	5	5	5	5	5	5	5
Mean	63	38	46	1	390	11.9	60	26	91	0.1	132
S.D.	6	7	12	1	41	4.3	13	9	14	0.0	5

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
4001	13	0.22	143	4.3	105	9.7	5.2	5.8	3.1	1.1
4002	21	0.30	142	4.1	107	10.0	5.7	5.7	3.1	1.2
4003	11	0.30	144	4.5	108	9.1	5.4	5.5	3.0	1.2
4004	20	0.31	144	4.4	107	9.5	5.7	6.0	3.2	1.1
4005	16	0.24	144	4.2	108	10.4	6.3	5.8	3.0	1.1
n	5	5	5	5	5	5	5	5	5	5
Mean	16	0.27	143	4.3	107	9.7	5.7	5.8	3.1	1.1
S.D.	4	0.04	1	0.2	1	0.5	0.4	0.2	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
1101	65	74	48	1	274	107.5	57	126	140	0.1	134
1103	67	43	32	1	359	19.8	47	58	99	0.1	133
1105	64	60	43	0	148	22.7	59	166	137	0.1	119
1107	70	51	37	1	207	14.2	45	41	86	0.1	132
1110	75	49	68	1	319	8.6	48	38	100	0.0	136
n	5	5	5	5	5	5	5	5	5	5	5
Mean	68	55	46	1	261	34.6	51	86	112	0.1	131
S.D.	4	12	14	0	85	41.1	6	57	24	0.0	7

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
1101	29	0.35	143	4.3	106	11.1	7.3	6.2	3.5	1.3
1103	16	0.34	143	4.1	107	10.8	7.7	5.9	3.1	1.1
1105	23	0.26	143	4.1	105	11.1	8.6	6.2	3.4	1.2
1107	17	0.32	143	4.3	108	10.4	6.0	5.9	3.3	1.3
1110	14	0.21	140	5.2	106	10.7	7.8	6.3	3.3	1.1
n	5	5	5	5	5	5	5	5	5	5
Mean	20	0.30	142	4.4	106	10.8	7.5	6.1	3.3	1.2
S.D.	6	0.06	1	0.5	1	0.3	1.0	0.2	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
2102	80	97	38	0	291	43.4	60	113	118	0.1	137
2106	59	42	35	0	296	7.4	48	85	101	0.1	113
2107	65	54	60	1	269	66.6	54	57	110	0.1	111
2111	344	354	40	3	301	48.9	51	34	107	0.1	107
2112	76	57	42	1	677	30.8	47	92	111	0.1	146
n	5	5	5	5	5	5	5	5	5	5	5
Mean	125	121	43	1	367	39.4	52	76	109	0.1	123
S.D.	123	132	10	1	174	22.0	5	31	6	0.0	17

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
2102	28	0.37	142	4.3	105	10.8	7.4	5.8	3.3	1.3
2106	19	0.27	142	4.4	105	10.6	7.0	5.9	3.2	1.2
2107	20	0.24	143	4.1	104	11.1	7.3	6.1	3.3	1.2
2111	20	0.30	142	4.3	105	10.5	6.9	6.0	3.3	1.2
2112	28	0.33	144	4.4	105	10.5	8.5	5.7	3.2	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	23	0.30	143	4.3	105	10.7	7.4	5.9	3.3	1.2
S.D.	5	0.05	1	0.1	0	0.3	0.6	0.2	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
3101	73	53	48	1	121	9.7	52	101	119	0.1	117
3107	86	75	94	1	367	36.7	43	27	80	0.1	121
3109	77	58	91	1	552	21.4	50	52	103	0.1	124
3110	63	55	39	1	201	20.7	63	148	140	0.1	116
3111	65	39	42	1	257	21.3	48	54	104	0.1	122
n	5	5	5	5	5	5	5	5	5	5	5
Mean	73	56	63	1	300	22.0	51	76	109	0.1	120
S.D.	9	13	27	0	167	9.6	7	48	22	0.0	3

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
3101	15	0.24	142	4.0	105	10.8	8.4	5.9	3.4	1.4
3107	19	0.28	141	4.5	102	10.8	7.5	6.2	3.3	1.1
3109	22	0.28	143	4.6	103	10.9	7.7	5.8	3.3	1.3
3110	21	0.29	141	4.7	102	11.4	8.5	6.5	3.5	1.2
3111	21	0.36	143	3.6	104	10.9	7.6	5.9	3.4	1.4
n	5	5	5	5	5	5	5	5	5	5
Mean	20	0.29	142	4.3	103	11.0	7.9	6.1	3.4	1.3
S.D.	3	0.04	1	0.5	1	0.3	0.5	0.3	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
4102	64	63	27	0	267	15.8	59	42	115	0.1	121
4103	89	64	42	0	306	12.8	61	58	117	0.1	130
4106	65	46	43	1	257	21.7	44	112	110	0.1	133
4110	85	64	44	1	394	21.7	50	23	93	0.1	116
4111	59	45	32	1	177	11.4	55	74	111	0.1	127
n	5	5	5	5	5	5	5	5	5	5	5
Mean	72	56	38	1	280	16.7	54	62	109	0.1	125
S.D.	14	10	8	1	79	4.9	7	34	9	0.0	7

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
4102	27	0.32	142	5.0	107	10.2	6.8	5.9	3.3	1.3
4103	21	0.32	142	4.1	105	10.5	8.4	5.8	3.1	1.1
4106	20	0.29	143	4.1	104	10.5	7.5	6.0	3.4	1.3
4110	30	0.38	143	4.5	109	10.2	6.6	6.0	3.2	1.1
4111	13	0.19	140	4.8	105	10.5	6.3	6.2	3.4	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	22	0.30	142	4.5	106	10.4	7.1	6.0	3.3	1.2
S.D.	7	0.07	1	0.4	2	0.2	0.8	0.1	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
5101	48	35	39	1	336	20.9	66	56	148	0.1	139
5102	63	28	37	0	172	6.8	72	21	139	0.1	154
5103	63	53	56	0	455	29.6	80	15	154	0.1	125
5104	56	34	57	1	230	17.7	65	13	127	0.1	140
5105	49	36	33	0	199	14.7	80	29	157	0.1	138
n	5	5	5	5	5	5	5	5	5	5	5
Mean	56	37	44	0	278	17.9	73	27	145	0.1	139
S.D.	7	9	11	1	117	8.4	7	17	12	0.0	10

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
5101	12	0.28	145	3.6	110	10.2	3.3	6.3	3.8	1.5
5102	16	0.32	142	4.0	110	9.8	3.0	6.0	3.6	1.5
5103	18	0.28	144	4.2	110	10.4	4.4	7.0	4.1	1.4
5104	18	0.31	143	4.2	109	10.1	5.0	6.0	3.4	1.3
5105	15	0.23	142	4.3	110	10.1	4.7	6.3	3.6	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	16	0.28	143	4.1	110	10.1	4.1	6.3	3.7	1.4
S.D.	2	0.04	1	0.3	0	0.2	0.9	0.4	0.3	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
6101	55	25	50	1	240	12.7	57	17	117	0.1	149
6102	72	54	44	1	413	57.4	66	22	135	0.1	141
6103	62	36	43	0	261	25.1	64	12	116	0.1	102
6104	187	140	86	1	301	18.4	58	23	108	0.1	139
6105	58	29	29	1	212	9.6	78	18	143	0.1	138
n	5	5	5	5	5	5	5	5	5	5	5
Mean	87	57	50	1	285	24.6	65	18	124	0.1	134
S.D.	56	48	21	0	78	19.2	8	4	15	0.0	18

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
6101	16	0.33	144	3.8	109	10.4	3.0	6.7	4.1	1.6
6102	19	0.32	144	3.8	109	10.0	3.5	6.5	3.8	1.4
6103	25	0.37	143	4.3	110	9.9	4.9	6.0	3.2	1.1
6104	18	0.32	144	4.2	109	10.2	4.4	6.4	3.6	1.3
6105	16	0.24	144	4.5	109	10.2	4.9	6.4	3.7	1.4
n	5	5	5	5	5	5	5	5	5	5
Mean	19	0.32	144	4.1	109	10.1	4.1	6.4	3.7	1.4
S.D.	4	0.05	0	0.3	0	0.2	0.9	0.3	0.3	0.2

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
1008	57	32	40	0	306	8.5	54	22	82	0.1	136
1009	85	47	58	1	418	12.7	53	40	90	0.1	146
1010	64	35	50	0	309	32.6	60	23	91	0.1	134
1011	64	49	41	0	420	82.1	69	40	104	0.1	132
1012	57	27	30	0	238	9.4	54	30	82	0.1	154
n	5	5	5	5	5	5	5	5	5	5	5
Mean	65	38	44	0	338	29.1	58	31	90	0.1	140
S.D.	12	10	11	0	79	31.2	7	9	9	0.0	9

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
1008	15	0.25	143	5.0	106	9.3	6.1	5.9	2.9	1.0
1009	20	0.33	142	4.5	106	9.7	6.3	5.9	3.0	1.0
1010	20	0.28	143	4.8	106	10.0	5.6	6.1	3.2	1.1
1011	21	0.29	143	4.8	108	9.9	5.7	5.7	3.1	1.2
1012	16	0.23	144	4.7	107	9.5	5.4	5.7	2.9	1.0
n	5	5	5	5	5	5	5	5	5	5
Mean	18	0.28	143	4.8	107	9.7	5.8	5.9	3.0	1.1
S.D.	3	0.04	1	0.2	1	0.3	0.4	0.2	0.1	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
4008	53	34	30	0	355	15.4	63	37	99	0.1	144
4009	60	35	40	0	333	12.3	39	33	70	0.1	157
4010	67	41	47	0	380	20.0	58	17	94	0.1	144
4011	62	46	40	1	343	7.2	84	36	109	0.1	137
4012	70	40	38	0	337	11.3	46	52	79	0.1	162
n	5	5	5	5	5	5	5	5	5	5	5
Mean	62	39	39	0	350	13.2	58	35	90	0.1	149
S.D.	7	5	6	0	19	4.8	17	12	16	0.0	10

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
4008	17	0.25	143	4.7	107	9.7	5.8	5.9	3.0	1.0
4009	16	0.26	144	4.5	106	10.0	5.6	6.0	3.0	1.0
4010	25	0.27	145	4.3	108	9.7	5.6	5.9	3.0	1.0
4011	17	0.26	144	4.6	106	9.8	5.1	6.4	3.2	1.0
4012	17	0.22	142	4.1	108	9.8	5.1	5.9	3.0	1.0
n	5	5	5	5	5	5	5	5	5	5
Mean	18	0.25	144	4.4	107	9.8	5.4	6.0	3.0	1.0
S.D.	4	0.02	1	0.2	1	0.1	0.3	0.2	0.1	0.0

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
5106	71	36	34	1	240	14.0	45	10	96	0.1	135
5107	98	53	44	0	143	11.5	57	15	105	0.1	127
5108	72	31	50	1	164	9.4	68	15	139	0.1	151
5109	104	43	39	0	111	11.4	97	22	177	0.1	158
5110	55	37	33	1	153	11.8	65	15	120	0.1	143
n	5	5	5	5	5	5	5	5	5	5	5
Mean	80	40	40	1	162	11.6	66	15	127	0.1	143
S.D.	20	8	7	1	48	1.6	19	4	32	0.0	12

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
5106	17	0.28	142	4.8	108	9.6	4.8	5.8	3.3	1.3
5107	17	0.37	141	4.4	107	10.1	5.5	6.3	3.5	1.3
5108	16	0.32	142	5.0	110	10.0	5.2	6.4	3.8	1.5
5109	17	0.37	142	4.3	107	10.3	4.2	7.5	4.3	1.3
5110	17	0.33	143	4.4	110	9.5	3.9	6.6	3.6	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	17	0.33	142	4.6	108	9.9	4.7	6.5	3.7	1.3
S.D.	0	0.04	1	0.3	2	0.3	0.7	0.6	0.4	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : End of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	AST IU/L	ALT IU/L	LDH IU/L	γ-GTP IU/L	ALP IU/L	T-BA μmol/L	T-CHO mg/dL	TG mg/dL	PL mg/dL	T-BIL mg/dL	GLU mg/dL
6106	63	35	35	0	110	21.3	78	30	149	0.1	135
6107	70	29	44	0	156	13.3	59	17	117	0.1	140
6108	69	43	37	1	214	7.7	69	21	130	0.1	144
6109	78	59	53	0	84	18.5	71	18	128	0.1	110
6110	69	30	36	1	208	14.4	70	11	126	0.1	135
n	5	5	5	5	5	5	5	5	5	5	5
Mean	70	39	41	0	154	15.0	69	19	130	0.1	133
S.D.	5	12	8	1	58	5.2	7	7	12	0.0	13

Animal No.	BUN mg/dL	CRNN mg/dL	Na mmol/L	K mmol/L	Cl mmol/L	Ca mg/dL	P mg/dL	TP g/dL	ALB g/dL	A/G
6106	14	0.25	143	4.3	110	9.8	4.5	6.6	3.9	1.4
6107	14	0.33	143	4.2	106	9.7	4.0	6.8	3.8	1.3
6108	17	0.30	141	4.1	107	10.2	5.7	6.6	3.6	1.2
6109	18	0.31	143	4.3	106	9.9	5.6	6.4	3.6	1.3
6110	17	0.31	144	4.1	108	9.9	5.3	6.2	3.5	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	16	0.30	143	4.2	107	9.9	5.0	6.5	3.7	1.3
S.D.	2	0.03	1	0.1	2	0.2	0.7	0.2	0.2	0.1

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : All littermates died

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
4109	84	47	69	0	385	21.8	59	192	150	0.0	148
n	1	1	1	1	1	1	1	1	1	1	1
Mean	84	47	69	0	385	21.8	59	192	150	0.0	148
S.D.											

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
4109	28	0.26	141	5.3	108	10.5	7.2	5.9	3.2	1.2
n	1	1	1	1	1	1	1	1	1	1
Mean	28	0.26	141	5.3	108	10.5	7.2	5.9	3.2	1.2
S.D.										

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Not copulated

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
2101	47	24	39	1	213	25.7	69	67	134	0.1	133
n	1	1	1	1	1	1	1	1	1	1	1
Mean	47	24	39	1	213	25.7	69	67	134	0.1	133
S.D.											

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
2101	17	0.32	141	4.2	105	10.1	4.2	6.4	3.6	1.3
n	1	1	1	1	1	1	1	1	1	1
Mean	17	0.32	141	4.2	105	10.1	4.2	6.4	3.6	1.3
S.D.										

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Undelivered

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
1109	62	60	33	0	738	6.8	42	67	90	0.0	169
n	1	1	1	1	1	1	1	1	1	1	1
Mean	62	60	33	0	738	6.8	42	67	90	0.0	169
S.D.											

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
1109	24	0.27	144	4.4	109	10.1	4.2	5.9	3.4	1.4
n	1	1	1	1	1	1	1	1	1	1
Mean	24	0.27	144	4.4	109	10.1	4.2	5.9	3.4	1.4
S.D.										

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 7 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Blood chemistry Stage : Undelivered

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	AST	ALT	LDH	γ-GTP	ALP	T-BA	T-CHO	TG	PL	T-BIL	GLU
Animal No.	IU/L	IU/L	IU/L	IU/L	IU/L	μmol/L	mg/dL	mg/dL	mg/dL	mg/dL	mg/dL
4104	50	40	39	0	344	17.0	68	58	145	0.1	174
n	1	1	1	1	1	1	1	1	1	1	1
Mean	50	40	39	0	344	17.0	68	58	145	0.1	174
S.D.											

	BUN	CRNN	Na	K	Cl	Ca	P	TP	ALB	A/G
Animal No.	mg/dL	mg/dL	mmol/L	mmol/L	mmol/L	mg/dL	mg/dL	g/dL	g/dL	
4104	19	0.27	142	4.2	107	10.7	4.7	6.9	3.8	1.2
n	1	1	1	1	1	1	1	1	1	1
Mean	19	0.27	142	4.2	107	10.7	4.7	6.9	3.8	1.2
S.D.										

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1001	498	2.21	0.44	13.3	2.7	11.6	2.3	10.1	2.0
1002	498	2.17	0.44	12.8	2.6	10.9	2.2	11.6	2.3
1003	540	2.10	0.39	12.0	2.2	8.7	1.6	10.6	2.0
1004	468	2.14	0.46	13.0	2.8	13.3	2.8	10.5	2.2
1005	487	2.06	0.42	12.8	2.6	11.7	2.4	10.1	2.1
1006	522	2.15	0.41	14.3	2.7	10.2	2.0	9.0	1.7
1007	478	2.06	0.43	11.7	2.4	14.0	2.9	10.6	2.2
n	7	7	7	7	7	7	7	7	7
Mean	499	2.13	0.43	12.8	2.6	11.5	2.3	10.4	2.1
S.D.	25	0.06	0.02	0.9	0.2	1.8	0.4	0.8	0.2

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
1001	21.7	4.4	367	74	1.38	0.28	12.67	2.54	0.70	0.14
1002	22.5	4.5	204	41	1.43	0.29	12.59	2.53	0.79	0.16
1003	19.3	3.6	332	61	1.40	0.26	13.79	2.55	0.80	0.15
1004	23.8	5.1	370	79	1.42	0.30	13.22	2.82	0.72	0.15
1005	21.8	4.5	288	59	1.32	0.27	12.52	2.57	0.75	0.15
1006	19.2	3.7	268	51	1.69	0.32	13.71	2.63	0.91	0.17
1007	24.6	5.1	201	42	1.52	0.32	12.78	2.67	0.67	0.14
n	7	7	7	7	7	7	7	7	7	7
Mean	21.8	4.4	290	58	1.45	0.29	13.04	2.62	0.76	0.15
S.D.	2.1	0.6	71	15	0.12	0.02	0.54	0.10	0.08	0.01

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
1001	1.62	0.33	1.64	0.33	3.26	0.65	25	5	26	5
1002	1.49	0.30	1.59	0.32	3.08	0.62	24	5	25	5
1003	1.69	0.31	1.70	0.31	3.39	0.63	27	5	28	5
1004	1.54	0.33	1.80	0.38	3.34	0.71	39	8	39	8
1005	1.57	0.32	1.55	0.32	3.12	0.64	36	7	34	7
1006	1.83	0.35	1.93	0.37	3.76	0.72	30	6	33	6
1007	1.75	0.37	1.70	0.36	3.45	0.72	37	8	36	8
n	7	7	7	7	7	7	7	7	7	7
Mean	1.64	0.33	1.70	0.34	3.34	0.67	31	6	32	6
S.D.	0.12	0.02	0.13	0.03	0.23	0.04	6	1	5	1

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
1001	51	10	1.66	0.33	1.68	0.34	3.34	0.67	629	126
1002	49	10	1.84	0.37	1.86	0.37	3.70	0.74	638	128
1003	55	10	1.85	0.34	1.87	0.35	3.72	0.69	602	111
1004	78	17	1.50	0.32	1.51	0.32	3.01	0.64	585	125
1005	70	14	1.79	0.37	1.77	0.36	3.56	0.73	713	146
1006	63	12	1.51	0.29	1.54	0.30	3.05	0.58	567	109
1007	73	15	1.70	0.36	1.81	0.38	3.51	0.73	804	168
n	7	7	7	7	7	7	7	7	7	7
Mean	63	13	1.69	0.34	1.72	0.35	3.41	0.68	648	130
S.D.	11	3	0.15	0.03	0.15	0.03	0.29	0.06	83	21

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
1001	726	146	1355	272	0.99	0.20	1.75	0.35
1002	603	121	1241	249	1.14	0.23	1.94	0.39
1003	578	107	1180	219	1.15	0.21	1.64	0.30
1004	588	126	1173	251	0.93	0.20	1.63	0.35
1005	715	147	1428	293	1.03	0.21	1.93	0.40
1006	568	109	1135	217	1.26	0.24	1.73	0.33
1007	760	159	1564	327	1.05	0.22	1.60	0.33
n	7	7	7	7	7	7	7	7
Mean	648	131	1297	261	1.08	0.22	1.75	0.35
S.D.	82	20	158	40	0.11	0.02	0.14	0.04

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
2001	492	2.10	0.43	11.1	2.3	13.1	2.7	11.2	2.3
2002	515	2.10	0.41	10.9	2.1	15.3	3.0	15.7	3.0
2003	475	1.84	0.39	10.0	2.1	11.7	2.5	10.8	2.3
2004	435	2.02	0.46	10.2	2.3	9.1	2.1	8.5	2.0
2005	477	2.13	0.45	12.0	2.5	11.0	2.3	11.6	2.4
2006	473	2.15	0.45	12.0	2.5	7.3	1.5	10.1	2.1
2007	541	2.08	0.38	10.4	1.9	12.2	2.3	10.1	1.9
2008	489	2.14	0.44	9.8	2.0	10.7	2.2	12.2	2.5
2009	510	2.18	0.43	15.1	3.0	9.6	1.9	10.1	2.0
2010	469	2.10	0.45	14.9	3.2	9.4	2.0	9.1	1.9
2011	475	2.09	0.44	9.0	1.9	13.1	2.8	9.4	2.0
2012	490	2.15	0.44	12.0	2.4	16.1	3.3	13.9	2.8
n	12	12	12	12	12	12	12	12	12
Mean	487	2.09	0.43	11.5	2.4	11.6	2.4	11.1	2.3
S.D.	27	0.09	0.03	1.9	0.4	2.6	0.5	2.1	0.4

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
2001	24.3	4.9	314	64	1.26	0.26	12.08	2.46	0.80	0.16
2002	31.0	6.0	348	68	1.65	0.32	15.24	2.96	0.70	0.14
2003	22.5	4.7	268	56	1.41	0.30	11.79	2.48	0.67	0.14
2004	17.6	4.0	168	39	1.26	0.29	10.42	2.40	0.61	0.14
2005	22.6	4.7	333	70	1.31	0.27	12.54	2.63	0.73	0.15
2006	17.4	3.7	166	35	1.32	0.28	11.77	2.49	0.64	0.14
2007	22.3	4.1	244	45	1.58	0.29	15.44	2.85	0.71	0.13
2008	22.9	4.7	374	76	1.45	0.30	12.12	2.48	0.62	0.13
2009	19.7	3.9	219	43	1.44	0.28	14.25	2.79	0.78	0.15
2010	18.5	3.9	242	52	1.55	0.33	12.25	2.61	0.68	0.14
2011	22.5	4.7	363	76	1.37	0.29	12.33	2.60	0.77	0.16
2012	30.0	6.1	218	44	1.44	0.29	13.25	2.70	0.68	0.14
n	12	12	12	12	12	12	12	12	12	12
Mean	22.6	4.6	271	56	1.42	0.29	12.79	2.62	0.70	0.14
S.D.	4.3	0.8	73	15	0.13	0.02	1.49	0.17	0.06	0.01

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
2001	1.46	0.30	1.45	0.29	2.91	0.59	23	5	29	6
2002	1.73	0.34	1.82	0.35	3.55	0.69	39	8	39	8
2003	1.47	0.31	1.49	0.31	2.96	0.62	27	6	29	6
2004	1.32	0.30	1.35	0.31	2.67	0.61	24	6	27	6
2005	1.67	0.35	1.79	0.38	3.46	0.73	22	5	26	5
2006	1.53	0.32	1.53	0.32	3.06	0.65	36	8	36	8
2007	1.62	0.30	1.63	0.30	3.25	0.60	32	6	33	6
2008	1.69	0.35	1.70	0.35	3.39	0.69	28	6	30	6
2009	1.80	0.35	1.77	0.35	3.57	0.70	24	5	32	6
2010	1.44	0.31	1.40	0.30	2.84	0.61	26	6	26	6
2011	1.61	0.34	1.63	0.34	3.24	0.68	31	7	38	8
2012	1.68	0.34	1.67	0.34	3.35	0.68	26	5	26	5
n	12	12	12	12	12	12	12	12	12	12
Mean	1.59	0.33	1.60	0.33	3.19	0.65	28	6	31	6
S.D.	0.14	0.02	0.16	0.03	0.30	0.05	5	1	5	1

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
2001	52	11	1.66	0.34	1.64	0.33	3.30	0.67	633	129
2002	78	15	1.61	0.31	1.65	0.32	3.26	0.63	654	127
2003	56	12	1.51	0.32	1.53	0.32	3.04	0.64	570	120
2004	51	12	1.43	0.33	1.43	0.33	2.86	0.66	496	114
2005	48	10	1.74	0.36	1.81	0.38	3.55	0.74	679	142
2006	72	15	1.86	0.39	1.82	0.38	3.68	0.78	638	135
2007	65	12	1.47	0.27	1.48	0.27	2.95	0.55	726	134
2008	58	12	1.55	0.32	1.52	0.31	3.07	0.63	605	124
2009	56	11	1.84	0.36	1.89	0.37	3.73	0.73	769	151
2010	52	11	1.67	0.36	1.71	0.36	3.38	0.72	597	127
2011	69	15	1.75	0.37	1.71	0.36	3.46	0.73	721	152
2012	52	11	1.64	0.33	1.63	0.33	3.27	0.67	659	134
n	12	12	12	12	12	12	12	12	12	12
Mean	59	12	1.64	0.34	1.65	0.34	3.30	0.68	646	132
S.D.	10	2	0.14	0.03	0.14	0.03	0.28	0.06	75	12

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
2001	573	116	1206	245	1.37	0.28	1.76	0.36
2002	624	121	1278	248	1.16	0.23	2.02	0.39
2003	572	120	1142	240	1.30	0.27	1.61	0.34
2004	508	117	1004	231	1.12	0.26	1.49	0.34
2005	680	143	1359	285	1.23	0.26	1.01	0.21
2006	623	132	1261	267	0.97	0.21	1.80	0.38
2007	726	134	1452	268	1.37	0.25	1.79	0.33
2008	608	124	1213	248	0.93	0.19	1.37	0.28
2009	734	144	1503	295	1.38	0.27	2.26	0.44
2010	582	124	1179	251	0.93	0.20	1.36	0.29
2011	639	135	1360	286	1.37	0.29	2.43	0.51
2012	594	121	1253	256	0.92	0.19	1.55	0.32
n	12	12	12	12	12	12	12	12
Mean	622	128	1268	260	1.17	0.24	1.70	0.35
S.D.	66	10	137	20	0.19	0.04	0.40	0.08

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
3001	570	2.29	0.40	12.4	2.2	11.0	1.9	11.2	2.0
3002	522	2.12	0.41	11.9	2.3	13.4	2.6	11.6	2.2
3003	490	2.30	0.47	11.7	2.4	11.3	2.3	7.9	1.6
3004	465	1.99	0.43	11.9	2.6	11.7	2.5	10.3	2.2
3005	473	2.17	0.46	13.6	2.9	16.5	3.5	11.9	2.5
3006	556	2.35	0.42	13.4	2.4	15.5	2.8	14.7	2.6
3007	559	2.12	0.38	14.1	2.5	8.6	1.5	14.6	2.6
3008	557	1.93	0.35	13.9	2.5	15.1	2.7	7.8	1.4
3009	473	2.06	0.44	14.0	3.0	10.1	2.1	8.8	1.9
3010	537	2.06	0.38	12.1	2.3	12.5	2.3	11.5	2.1
3011	490	2.15	0.44	10.4	2.1	13.6	2.8	11.9	2.4
3012	476	2.01	0.42	11.3	2.4	11.5	2.4	11.1	2.3
n	12	12	12	12	12	12	12	12	12
Mean	514	2.13	0.42	12.6	2.5	12.6	2.5	11.1	2.2
S.D.	40	0.13	0.03	1.2	0.3	2.3	0.5	2.2	0.4

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
3001	22.2	3.9	218	38	1.74	0.31	17.37	3.05	0.79	0.14
3002	25.0	4.8	427	82	1.57	0.30	13.67	2.62	0.76	0.15
3003	19.2	3.9	250	51	1.59	0.32	11.39	2.32	0.70	0.14
3004	22.0	4.7	302	65	1.35	0.29	11.74	2.52	0.58	0.12
3005	28.4	6.0	261	55	1.43	0.30	13.45	2.84	0.70	0.15
3006	30.2	5.4	382	69	1.53	0.28	14.85	2.67	0.64	0.12
3007	23.2	4.2	301	54	1.66	0.30	14.80	2.65	0.76	0.14
3008	22.9	4.1	521	94	1.54	0.28	14.39	2.58	0.94	0.17
3009	18.9	4.0	120	25	1.47	0.31	11.69	2.47	0.61	0.13
3010	24.0	4.5	239	45	1.50	0.28	14.57	2.71	1.14	0.21
3011	25.5	5.2	333	68	1.27	0.26	11.75	2.40	0.67	0.14
3012	22.6	4.7	201	42	1.34	0.28	11.94	2.51	0.58	0.12
n	12	12	12	12	12	12	12	12	12	12
Mean	23.7	4.6	296	57	1.50	0.29	13.47	2.61	0.74	0.14
S.D.	3.3	0.7	108	19	0.14	0.02	1.83	0.20	0.16	0.03

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
3001	1.91	0.34	2.01	0.35	3.92	0.69	33	6	35	6
3002	1.48	0.28	1.58	0.30	3.06	0.59	26	5	29	6
3003	1.39	0.28	1.48	0.30	2.87	0.59	36	7	31	6
3004	1.50	0.32	1.54	0.33	3.04	0.65	30	6	31	7
3005	1.62	0.34	1.81	0.38	3.43	0.73	35	7	33	7
3006	1.72	0.31	1.71	0.31	3.43	0.62	37	7	37	7
3007	1.92	0.34	1.86	0.33	3.78	0.68	38	7	34	6
3008	1.97	0.35	2.02	0.36	3.99	0.72	36	6	36	6
3009	1.77	0.37	1.78	0.38	3.55	0.75	27	6	29	6
3010	1.82	0.34	1.98	0.37	3.80	0.71	33	6	35	7
3011	1.47	0.30	1.54	0.31	3.01	0.61	26	5	29	6
3012	1.61	0.34	1.64	0.34	3.25	0.68	26	5	29	6
n	12	12	12	12	12	12	12	12	12	12
Mean	1.68	0.33	1.75	0.34	3.43	0.67	32	6	32	6
S.D.	0.20	0.03	0.19	0.03	0.39	0.06	5	1	3	0

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
3001	68	12	1.52	0.27	1.53	0.27	3.05	0.54	654	115
3002	55	11	1.71	0.33	1.60	0.31	3.31	0.63	562	108
3003	67	14	1.70	0.35	1.69	0.34	3.39	0.69	744	152
3004	61	13	1.70	0.37	1.70	0.37	3.40	0.73	573	123
3005	68	14	1.68	0.36	1.62	0.34	3.30	0.70	621	131
3006	74	13	1.82	0.33	1.77	0.32	3.59	0.65	801	144
3007	72	13	1.69	0.30	1.63	0.29	3.32	0.59	658	118
3008	72	13	1.55	0.28	1.53	0.27	3.08	0.55	572	103
3009	56	12	1.79	0.38	1.80	0.38	3.59	0.76	630	133
3010	68	13	1.86	0.35	1.80	0.34	3.66	0.68	785	146
3011	55	11	1.70	0.35	1.65	0.34	3.35	0.68	649	132
3012	55	12	1.53	0.32	1.52	0.32	3.05	0.64	486	102
n	12	12	12	12	12	12	12	12	12	12
Mean	64	13	1.69	0.33	1.65	0.32	3.34	0.65	645	126
S.D.	7	1	0.11	0.03	0.10	0.04	0.21	0.07	94	17

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
3001	633	111	1287	226	1.11	0.19	1.86	0.33
3002	525	101	1087	208	1.37	0.26	1.54	0.30
3003	723	148	1467	299	1.24	0.25	2.31	0.47
3004	562	121	1135	244	1.28	0.28	1.57	0.34
3005	585	124	1206	255	1.26	0.27	1.94	0.41
3006	735	132	1536	276	1.35	0.24	1.70	0.31
3007	644	115	1302	233	1.07	0.19	1.69	0.30
3008	586	105	1158	208	1.23	0.22	1.62	0.29
3009	615	130	1245	263	1.07	0.23	1.64	0.35
3010	714	133	1499	279	1.14	0.21	2.19	0.41
3011	617	126	1266	258	1.05	0.21	1.49	0.30
3012	518	109	1004	211	1.33	0.28	1.90	0.40
n	12	12	12	12	12	12	12	12
Mean	621	121	1266	247	1.21	0.24	1.79	0.35
S.D.	73	14	166	30	0.12	0.03	0.26	0.06

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 9 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4001	436	2.12	0.49	10.9	2.5	11.0	2.5	10.1	2.3
4002	489	2.30	0.47	12.2	2.5	15.7	3.2	12.9	2.6
4003	483	2.08	0.43	9.6	2.0	13.3	2.8	8.2	1.7
4004	535	2.11	0.39	13.6	2.5	14.6	2.7	15.6	2.9
4005	524	2.23	0.43	12.3	2.3	12.3	2.3	11.1	2.1
4006	465	2.24	0.48	12.3	2.6	14.1	3.0	13.0	2.8
4007	484	2.27	0.47	10.7	2.2	14.0	2.9	10.2	2.1
n	7	7	7	7	7	7	7	7	7
Mean	488	2.19	0.45	11.7	2.4	13.6	2.8	11.6	2.4
S.D.	34	0.09	0.04	1.3	0.2	1.5	0.3	2.4	0.4

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
4001	21.1	4.8	279	64	1.39	0.32	11.71	2.69	0.62	0.14
4002	28.6	5.8	362	74	1.37	0.28	12.76	2.61	0.77	0.16
4003	21.5	4.5	242	50	1.35	0.28	11.40	2.36	0.59	0.12
4004	30.2	5.6	256	48	1.39	0.26	13.80	2.58	0.68	0.13
4005	23.4	4.5	262	50	1.43	0.27	13.39	2.56	0.60	0.11
4006	27.1	5.8	358	77	1.33	0.29	11.82	2.54	0.80	0.17
4007	24.2	5.0	348	72	1.39	0.29	13.66	2.82	0.95	0.20
n	7	7	7	7	7	7	7	7	7	7
Mean	25.2	5.1	301	62	1.38	0.28	12.65	2.59	0.72	0.15
S.D.	3.5	0.6	53	13	0.03	0.02	1.00	0.14	0.13	0.03

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
4001	1.57	0.36	1.70	0.39	3.27	0.75	27	6	29	7
4002	1.61	0.33	1.82	0.37	3.43	0.70	28	6	28	6
4003	1.59	0.33	1.74	0.36	3.33	0.69	25	5	24	5
4004	1.65	0.31	1.71	0.32	3.36	0.63	24	4	27	5
4005	1.67	0.32	1.90	0.36	3.57	0.68	29	6	34	6
4006	1.65	0.35	1.57	0.34	3.22	0.69	24	5	25	5
4007	1.50	0.31	1.57	0.32	3.07	0.63	28	6	26	5
n	7	7	7	7	7	7	7	7	7	7
Mean	1.61	0.33	1.72	0.35	3.32	0.68	26	5	28	6
S.D.	0.06	0.02	0.12	0.03	0.16	0.04	2	1	3	1

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 10 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
4001	56	13	1.60	0.37	1.62	0.37	3.22	0.74	511	117
4002	56	11	1.72	0.35	1.68	0.34	3.40	0.70	644	132
4003	49	10	1.53	0.32	1.55	0.32	3.08	0.64	691	143
4004	51	10	1.54	0.29	1.57	0.29	3.11	0.58	759	142
4005	63	12	1.78	0.34	1.79	0.34	3.57	0.68	656	125
4006	49	11	1.84	0.40	1.75	0.38	3.59	0.77	768	165
4007	54	11	1.97	0.41	2.05	0.42	4.02	0.83	743	154
n	7	7	7	7	7	7	7	7	7	7
Mean	54	11	1.71	0.35	1.72	0.35	3.43	0.71	682	140
S.D.	5	1	0.16	0.04	0.17	0.04	0.33	0.08	90	17

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
4001	512	117	1023	235	1.06	0.24	1.61	0.37
4002	632	129	1276	261	1.07	0.22	1.62	0.33
4003	621	129	1312	272	1.12	0.23	2.05	0.42
4004	716	134	1475	276	1.12	0.21	1.88	0.35
4005	629	120	1285	245	1.14	0.22	1.68	0.32
4006	671	144	1439	309	1.00	0.22	1.44	0.31
4007	715	148	1458	301	0.85	0.18	1.56	0.32
n	7	7	7	7	7	7	7	7
Mean	642	132	1324	271	1.05	0.22	1.69	0.35
S.D.	70	11	157	27	0.10	0.02	0.21	0.04

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 11 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1101	316	1.94	0.61	17.7	5.6	9.5	3.0	8.6	2.7
1102	311	2.06	0.66	17.8	5.7	9.0	2.9	9.0	2.9
1103	333	2.01	0.60	17.8	5.3	8.1	2.4	9.1	2.7
1104	338	2.14	0.63	19.8	5.9	8.4	2.5	7.4	2.2
1105	312	1.93	0.62	16.9	5.4	9.1	2.9	8.6	2.8
1106	325	1.86	0.57	17.0	5.2	7.7	2.4	7.7	2.4
1107	307	1.95	0.64	16.2	5.3	7.6	2.5	7.7	2.5
1108	338	2.00	0.59	20.5	6.1	9.5	2.8	9.4	2.8
1110	329	1.99	0.60	17.6	5.3	8.5	2.6	8.6	2.6
1111	302	1.95	0.65	17.6	5.8	9.5	3.1	8.1	2.7
1112	338	1.85	0.55	18.2	5.4	15.5	4.6	8.4	2.5
n	11	11	11	11	11	11	11	11	11
Mean	323	1.97	0.61	17.9	5.5	9.3	2.9	8.4	2.6
S.D.	14	0.08	0.03	1.2	0.3	2.2	0.6	0.6	0.2

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
1101	18.1	5.7	252	80	1.00	0.32	10.03	3.17	0.68	0.22
1102	18.0	5.8	250	80	0.99	0.32	10.80	3.47	0.78	0.25
1103	17.2	5.2	274	82	1.03	0.31	10.60	3.18	0.59	0.18
1104	15.8	4.7	197	58	1.14	0.34	12.00	3.55	0.70	0.21
1105	17.7	5.7	165	53	0.90	0.29	10.62	3.40	0.65	0.21
1106	15.4	4.7	207	64	1.00	0.31	11.06	3.40	0.71	0.22
1107	15.3	5.0	216	70	0.99	0.32	9.48	3.09	0.69	0.22
1108	18.9	5.6	242	72	1.07	0.32	11.18	3.31	0.68	0.20
1110	17.1	5.2	302	92	1.04	0.32	10.44	3.17	0.80	0.24
1111	17.6	5.8	159	53	1.08	0.36	9.95	3.29	0.78	0.26
1112	23.9	7.1	196	58	1.04	0.31	10.89	3.22	0.76	0.22
n	11	11	11	11	11	11	11	11	11	11
Mean	17.7	5.5	224	69	1.03	0.32	10.64	3.30	0.71	0.22
S.D.	2.4	0.7	45	13	0.06	0.02	0.68	0.14	0.06	0.02

AB : Absolute weight, RE : Relative weight by body weight

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 12 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
1101	0.99	0.31	0.95	0.30	1.94	0.61	33	10	40	13
1102	1.14	0.37	1.18	0.38	2.32	0.75	40	13	40	13
1103	1.03	0.31	1.03	0.31	2.06	0.62	43	13	43	13
1104	1.28	0.38	1.31	0.39	2.59	0.77	37	11	43	13
1105	1.07	0.34	1.02	0.33	2.09	0.67	33	11	35	11
1106	1.15	0.35	1.18	0.36	2.33	0.72	35	11	39	12
1107	1.14	0.37	1.10	0.36	2.24	0.73	25	8	33	11
1108	1.18	0.35	1.17	0.35	2.35	0.70	38	11	41	12
1110	1.13	0.34	1.17	0.36	2.30	0.70	35	11	39	12
1111	1.06	0.35	1.05	0.35	2.11	0.70	30	10	36	12
1112	1.15	0.34	1.16	0.34	2.31	0.68	33	10	40	12
n	11	11	11	11	11	11	11	11	11	11
Mean	1.12	0.35	1.12	0.35	2.24	0.70	35	11	39	12
S.D.	0.08	0.02	0.10	0.03	0.18	0.05	5	1	3	1

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1101	73	23	53.7	17.0	42.4	13.4	96.1	30.4	627	198
1102	80	26	47.5	15.3	53.8	17.3	101.3	32.6	873	281
1103	86	26	57.9	17.4	56.5	17.0	114.4	34.4	743	223
1104	80	24	61.4	18.2	68.8	20.4	130.2	38.5	814	241
1105	68	22	54.6	17.5	50.3	16.1	104.9	33.6	773	248
1106	74	23	45.3	13.9	51.2	15.8	96.5	29.7	684	210
1107	58	19	68.8	22.4	46.7	15.2	115.5	37.6	513	167
1108	79	23	62.6	18.5	70.0	20.7	132.6	39.2	744	220
1110	74	22	52.0	15.8	43.4	13.2	95.4	29.0	800	243
1111	66	22	29.7	9.8	49.1	16.3	78.8	26.1	1231	408
1112	73	22	50.2	14.9	59.6	17.6	109.8	32.5	832	246
n	11	11	11	11	11	11	11	11	11	11
Mean	74	23	53.1	16.4	53.8	16.6	106.9	33.1	785	244
S.D.	8	2	10.4	3.2	9.3	2.4	15.9	4.2	180	62

AB : Absolute weight, RE : Relative weight by body weight

Animal No.1109:Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 13 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
2102	312	1.83	0.59	13.9	4.5	9.9	3.2	7.6	2.4
2103	316	1.97	0.62	18.1	5.7	7.7	2.4	6.2	2.0
2104	304	1.92	0.63	18.7	6.2	11.9	3.9	9.4	3.1
2105	309	1.89	0.61	12.5	4.0	8.9	2.9	8.1	2.6
2106	337	1.88	0.56	18.2	5.4	6.2	1.8	8.3	2.5
2107	323	2.09	0.65	18.0	5.6	9.8	3.0	9.5	2.9
2108	309	1.88	0.61	16.2	5.2	9.6	3.1	7.4	2.4
2109	323	2.03	0.63	18.1	5.6	7.8	2.4	8.2	2.5
2110	344	2.06	0.60	19.4	5.6	8.9	2.6	8.6	2.5
2111	312	1.85	0.59	19.6	6.3	8.9	2.9	5.7	1.8
2112	344	2.04	0.59	17.7	5.1	9.9	2.9	8.8	2.6
n	11	11	11	11	11	11	11	11	11
Mean	321	1.95	0.61	17.3	5.4	9.0	2.8	8.0	2.5
S.D.	14	0.09	0.02	2.2	0.7	1.5	0.5	1.2	0.4

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
2102	17.5	5.6	194	62	0.99	0.32	10.10	3.24	0.60	0.19
2103	13.9	4.4	195	62	0.99	0.31	11.40	3.61	0.66	0.21
2104	21.3	7.0	93	31	0.96	0.32	10.38	3.41	0.70	0.23
2105	17.0	5.5	190	61	0.94	0.30	10.48	3.39	0.78	0.25
2106	14.5	4.3	266	79	1.04	0.31	11.11	3.30	0.80	0.24
2107	19.3	6.0	161	50	1.05	0.33	10.96	3.39	0.77	0.24
2108	17.0	5.5	166	54	0.87	0.28	9.95	3.22	0.54	0.17
2109	16.0	5.0	170	53	1.00	0.31	12.32	3.81	0.76	0.24
2110	17.5	5.1	214	62	1.17	0.34	11.89	3.46	0.75	0.22
2111	14.6	4.7	242	78	0.90	0.29	10.00	3.21	0.68	0.22
2112	18.7	5.4	247	72	1.04	0.30	11.58	3.37	0.71	0.21
n	11	11	11	11	11	11	11	11	11	11
Mean	17.0	5.3	194	60	1.00	0.31	10.92	3.40	0.70	0.22
S.D.	2.2	0.8	48	14	0.08	0.02	0.81	0.18	0.08	0.02

AB : Absolute weight, RE : Relative weight by body weight

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 14 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
2102	1.04	0.33	1.03	0.33	2.07	0.66	34	11	35	11
2103	1.35	0.43	1.30	0.41	2.65	0.84	31	10	34	11
2104	1.03	0.34	1.04	0.34	2.07	0.68	29	10	32	11
2105	1.10	0.36	1.03	0.33	2.13	0.69	29	9	33	11
2106	1.15	0.34	1.08	0.32	2.23	0.66	35	10	36	11
2107	1.17	0.36	1.08	0.33	2.25	0.70	37	11	41	13
2108	1.16	0.38	1.17	0.38	2.33	0.75	34	11	37	12
2109	1.24	0.38	1.24	0.38	2.48	0.77	40	12	42	13
2110	1.22	0.35	1.24	0.36	2.46	0.72	49	14	57	17
2111	1.07	0.34	1.08	0.35	2.15	0.69	41	13	44	14
2112	1.18	0.34	1.15	0.33	2.33	0.68	41	12	46	13
n	11	11	11	11	11	11	11	11	11	11
Mean	1.16	0.36	1.13	0.35	2.29	0.71	36	11	40	12
S.D.	0.09	0.03	0.10	0.03	0.19	0.05	6	1	7	2

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
2102	69	22	46.0	14.7	48.6	15.6	94.6	30.3	783	251
2103	65	21	40.4	12.8	59.2	18.7	99.6	31.5	724	229
2104	61	20	70.8	23.3	56.3	18.5	127.1	41.8	675	222
2105	62	20	49.6	16.1	49.5	16.0	99.1	32.1	824	267
2106	71	21	70.4	20.9	61.0	18.1	131.4	39.0	774	230
2107	78	24	60.0	18.6	38.1	11.8	98.1	30.4	662	205
2108	71	23	52.2	16.9	37.0	12.0	89.2	28.9	760	246
2109	82	25	57.5	17.8	38.6	12.0	96.1	29.8	941	291
2110	106	31	53.4	15.5	59.9	17.4	113.3	32.9	890	259
2111	85	27	35.3	11.3	56.6	18.1	91.9	29.5	653	209
2112	87	25	61.7	17.9	52.8	15.3	114.5	33.3	703	204
n	11	11	11	11	11	11	11	11	11	11
Mean	76	24	54.3	16.9	50.7	15.8	105.0	32.7	763	238
S.D.	13	3	11.3	3.4	9.1	2.7	14.4	4.1	93	28

AB : Absolute weight, RE : Relative weight by body weight

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 15 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
3101	314	1.88	0.60	14.4	4.6	6.2	2.0	8.1	2.6
3102	349	2.05	0.59	20.8	6.0	10.5	3.0	7.2	2.1
3103	336	2.08	0.62	17.1	5.1	11.2	3.3	12.7	3.8
3104	288	1.90	0.66	17.3	6.0	7.9	2.7	4.6	1.6
3105	334	2.14	0.64	24.3	7.3	9.3	2.8	12.1	3.6
3106	309	1.82	0.59	19.3	6.2	8.0	2.6	3.5	1.1
3107	303	1.92	0.63	16.1	5.3	7.6	2.5	8.0	2.6
3108	337	2.13	0.63	17.6	5.2	7.1	2.1	9.7	2.9
3109	319	2.05	0.64	19.2	6.0	7.5	2.4	7.7	2.4
3110	336	1.96	0.58	15.3	4.6	7.5	2.2	7.8	2.3
3111	285	1.94	0.68	14.7	5.2	9.7	3.4	7.0	2.5
3112	336	2.04	0.61	19.2	5.7	6.1	1.8	5.1	1.5
n	12	12	12	12	12	12	12	12	12
Mean	321	1.99	0.62	17.9	5.6	8.2	2.6	7.8	2.4
S.D.	21	0.10	0.03	2.8	0.8	1.6	0.5	2.8	0.8

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
3101	14.3	4.6	176	56	0.99	0.32	10.25	3.26	0.57	0.18
3102	17.7	5.1	216	62	1.01	0.29	10.45	2.99	0.59	0.17
3103	23.9	7.1	233	69	1.10	0.33	10.83	3.22	0.68	0.20
3104	12.5	4.3	221	77	0.91	0.32	9.52	3.31	0.63	0.22
3105	21.4	6.4	260	78	1.09	0.33	10.72	3.21	0.64	0.19
3106	11.5	3.7	147	48	0.97	0.31	10.46	3.39	0.69	0.22
3107	15.6	5.1	193	64	1.00	0.33	10.05	3.32	0.56	0.18
3108	16.8	5.0	229	68	1.21	0.36	11.31	3.36	0.70	0.21
3109	15.2	4.8	235	74	0.96	0.30	10.02	3.14	0.67	0.21
3110	15.3	4.6	273	81	1.09	0.32	11.63	3.46	1.05	0.31
3111	16.7	5.9	183	64	0.86	0.30	9.25	3.25	0.57	0.20
3112	11.2	3.3	263	78	0.92	0.27	10.83	3.22	0.74	0.22
n	12	12	12	12	12	12	12	12	12	12
Mean	16.0	5.0	219	68	1.01	0.32	10.44	3.26	0.67	0.21
S.D.	3.8	1.1	38	10	0.10	0.02	0.69	0.12	0.13	0.04

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 16 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
3101	1.00	0.32	0.94	0.30	1.94	0.62	40	13	40	13
3102	1.25	0.36	1.25	0.36	2.50	0.72	33	9	33	9
3103	1.30	0.39	1.25	0.37	2.55	0.76	33	10	39	12
3104	1.06	0.37	1.05	0.36	2.11	0.73	29	10	36	13
3105	1.25	0.37	1.24	0.37	2.49	0.75	39	12	41	12
3106	1.13	0.37	1.13	0.37	2.26	0.73	37	12	38	12
3107	1.16	0.38	1.18	0.39	2.34	0.77	36	12	41	14
3108	1.20	0.36	1.29	0.38	2.49	0.74	40	12	45	13
3109	1.11	0.35	1.15	0.36	2.26	0.71	28	9	31	10
3110	1.11	0.33	1.10	0.33	2.21	0.66	30	9	36	11
3111	1.06	0.37	1.07	0.38	2.13	0.75	28	10	33	12
3112	1.07	0.32	1.09	0.32	2.16	0.64	41	12	43	13
n	12	12	12	12	12	12	12	12	12	12
Mean	1.14	0.36	1.15	0.36	2.29	0.72	35	11	38	12
S.D.	0.09	0.02	0.10	0.03	0.19	0.05	5	1	4	1

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
3101	80	25	73.6	23.4	50.1	16.0	123.7	39.4	992	316
3102	66	19	65.2	18.7	65.3	18.7	130.5	37.4	739	212
3103	72	21	48.2	14.3	55.1	16.4	103.3	30.7	733	218
3104	65	23	57.6	20.0	39.2	13.6	96.8	33.6	682	237
3105	80	24	48.6	14.6	60.7	18.2	109.3	32.7	863	258
3106	75	24	45.6	14.8	48.2	15.6	93.8	30.4	812	263
3107	77	25	53.1	17.5	55.2	18.2	108.3	35.7	773	255
3108	85	25	63.9	19.0	51.1	15.2	115.0	34.1	795	236
3109	59	18	52.6	16.5	38.6	12.1	91.2	28.6	882	276
3110	66	20	40.0	11.9	53.4	15.9	93.4	27.8	939	279
3111	61	21	63.2	22.2	39.9	14.0	103.1	36.2	735	258
3112	84	25	57.7	17.2	52.1	15.5	109.8	32.7	704	210
n	12	12	12	12	12	12	12	12	12	12
Mean	73	23	55.8	17.5	50.7	15.8	106.5	33.3	804	252
S.D.	9	3	9.6	3.4	8.3	2.0	12.2	3.5	97	31

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 17 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4101	303	2.07	0.68	15.1	5.0	7.3	2.4	5.5	1.8
4102	305	1.97	0.65	15.7	5.1	8.8	2.9	6.8	2.2
4103	329	1.83	0.56	16.2	4.9	8.6	2.6	8.3	2.5
4105	344	2.08	0.60	19.0	5.5	14.7	4.3	12.9	3.8
4106	310	1.89	0.61	16.5	5.3	5.3	1.7	4.0	1.3
4107	328	1.94	0.59	18.2	5.5	10.4	3.2	9.2	2.8
4108	306	1.90	0.62	16.6	5.4	8.2	2.7	7.9	2.6
4110	325	1.90	0.58	18.5	5.7	15.5	4.8	11.4	3.5
4111	348	2.00	0.57	21.5	6.2	9.1	2.6	6.4	1.8
4112	299	2.03	0.68	16.5	5.5	9.9	3.3	10.1	3.4
n	10	10	10	10	10	10	10	10	10
Mean	320	1.96	0.61	17.4	5.4	9.8	3.1	8.3	2.6
S.D.	18	0.08	0.04	1.9	0.4	3.1	0.9	2.7	0.8

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
4101	12.8	4.2	239	79	0.97	0.32	11.49	3.79	0.60	0.20
4102	15.6	5.1	112	37	0.92	0.30	9.66	3.17	0.77	0.25
4103	16.9	5.1	295	90	0.97	0.29	10.77	3.27	0.73	0.22
4105	27.6	8.0	362	105	1.04	0.30	10.90	3.17	0.72	0.21
4106	9.3	3.0	133	43	1.04	0.34	9.59	3.09	0.69	0.22
4107	19.6	6.0	234	71	1.10	0.34	10.46	3.19	0.64	0.20
4108	16.1	5.3	204	67	1.02	0.33	10.23	3.34	0.63	0.21
4110	26.9	8.3	195	60	0.96	0.30	10.22	3.14	0.56	0.17
4111	15.5	4.5	196	56	1.15	0.33	11.24	3.23	0.67	0.19
4112	20.0	6.7	158	53	0.93	0.31	9.50	3.18	0.64	0.21
n	10	10	10	10	10	10	10	10	10	10
Mean	18.0	5.6	213	66	1.01	0.32	10.41	3.26	0.67	0.21
S.D.	5.7	1.7	75	21	0.07	0.02	0.70	0.20	0.06	0.02

AB : Absolute weight, RE : Relative weight by body weight

Animal No.4104: Non-pregnancy

Animal No.4109: Necropsied on lactation day 1 because all pups died

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 18 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Lactation day 5

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
4101	1.26	0.42	1.16	0.38	2.42	0.80	35	12	34	11
4102	0.97	0.32	0.91	0.30	1.88	0.62	39	13	41	13
4103	1.16	0.35	1.23	0.37	2.39	0.73	33	10	34	10
4105	1.15	0.33	1.14	0.33	2.29	0.67	38	11	41	12
4106	1.07	0.35	1.19	0.38	2.26	0.73	32	10	37	12
4107	1.06	0.32	1.09	0.33	2.15	0.66	36	11	40	12
4108	1.21	0.40	1.17	0.38	2.38	0.78	41	13	46	15
4110	1.14	0.35	1.12	0.34	2.26	0.70	40	12	42	13
4111	1.29	0.37	1.26	0.36	2.55	0.73	38	11	46	13
4112	1.10	0.37	1.13	0.38	2.23	0.75	40	13	41	14
n	10	10	10	10	10	10	10	10	10	10
Mean	1.14	0.36	1.14	0.36	2.28	0.72	37	12	40	13
S.D.	0.10	0.03	0.10	0.03	0.18	0.06	3	1	4	1

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4101	69	23	55.2	18.2	59.6	19.7	114.8	37.9	837	276
4102	80	26	53.0	17.4	49.1	16.1	102.1	33.5	854	280
4103	67	20	52.6	16.0	57.4	17.4	110.0	33.4	710	216
4105	79	23	50.1	14.6	57.8	16.8	107.9	31.4	1045	304
4106	69	22	46.9	15.1	53.6	17.3	100.5	32.4	630	203
4107	76	23	53.5	16.3	74.6	22.7	128.1	39.1	718	219
4108	87	28	51.1	16.7	54.4	17.8	105.5	34.5	796	260
4110	82	25	57.7	17.8	37.8	11.6	95.5	29.4	663	204
4111	84	24	55.8	16.0	44.7	12.8	100.5	28.9	918	264
4112	81	27	39.8	13.3	54.9	18.4	94.7	31.7	752	252
n	10	10	10	10	10	10	10	10	10	10
Mean	77	24	51.6	16.1	54.4	17.1	106.0	33.2	792	248
S.D.	7	2	5.1	1.5	9.7	3.2	10.0	3.3	126	35

AB : Absolute weight, RE : Relative weight by body weight

Animal No.4104: Non-pregnancy

Animal No.4109: Necropsied on lactation day 1 because all pups died

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 19 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
5101	311	1.90	0.61	16.8	5.4	7.6	2.4	8.1	2.6
5102	289	1.95	0.67	13.5	4.7	9.8	3.4	7.7	2.7
5103	298	2.12	0.71	17.9	6.0	7.7	2.6	7.5	2.5
5104	296	1.93	0.65	15.8	5.3	7.3	2.5	6.3	2.1
5105	309	1.87	0.61	15.9	5.1	7.4	2.4	8.6	2.8
n	5	5	5	5	5	5	5	5	5
Mean	301	1.95	0.65	16.0	5.3	8.0	2.7	7.6	2.5
S.D.	9	0.10	0.04	1.6	0.5	1.0	0.4	0.9	0.3

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
5101	15.7	5.0	196	63	0.91	0.29	8.23	2.65	0.47	0.15
5102	17.5	6.1	309	107	0.83	0.29	7.26	2.51	0.44	0.15
5103	15.2	5.1	238	80	0.99	0.33	8.26	2.77	0.52	0.17
5104	13.6	4.6	320	108	0.81	0.27	7.54	2.55	0.51	0.17
5105	16.0	5.2	176	57	0.98	0.32	8.69	2.81	0.56	0.18
n	5	5	5	5	5	5	5	5	5	5
Mean	15.6	5.2	248	83	0.90	0.30	8.00	2.66	0.50	0.16
S.D.	1.4	0.6	65	24	0.08	0.02	0.58	0.13	0.05	0.01

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
5101	0.99	0.32	1.01	0.32	2.00	0.64	28	9	32	10
5102	0.93	0.32	0.92	0.32	1.85	0.64	33	11	35	12
5103	0.99	0.33	1.02	0.34	2.01	0.67	32	11	37	12
5104	1.01	0.34	0.97	0.33	1.98	0.67	30	10	31	10
5105	1.12	0.36	1.16	0.38	2.28	0.74	32	10	32	10
n	5	5	5	5	5	5	5	5	5	5
Mean	1.01	0.33	1.02	0.34	2.02	0.67	31	10	33	11
S.D.	0.07	0.02	0.09	0.02	0.16	0.04	2	1	3	1

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 20 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
Animal No.	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g
5101	60	19	39.9	12.8	42.6	13.7	82.5	26.5	711	229
5102	68	24	31.5	10.9	38.8	13.4	70.3	24.3	641	222
5103	69	23	37.9	12.7	44.7	15.0	82.6	27.7	668	224
5104	61	21	37.7	12.7	38.1	12.9	75.8	25.6	625	211
5105	64	21	42.0	13.6	43.8	14.2	85.8	27.8	863	279
n	5	5	5	5	5	5	5	5	5	5
Mean	64	22	37.8	12.5	41.6	13.8	79.4	26.4	702	233
S.D.	4	2	3.9	1.0	3.0	0.8	6.3	1.5	96	27

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 21 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
6101	303	1.90	0.63	13.6	4.5	3.5	1.2	5.4	1.8
6102	280	2.05	0.73	14.5	5.2	6.2	2.2	8.5	3.0
6103	264	2.03	0.77	16.6	6.3	3.7	1.4	4.7	1.8
6104	285	2.16	0.76	15.4	5.4	9.9	3.5	9.0	3.2
6105	261	2.00	0.77	11.2	4.3	7.0	2.7	6.5	2.5
n	5	5	5	5	5	5	5	5	5
Mean	279	2.03	0.73	14.3	5.1	6.1	2.2	6.8	2.5
S.D.	17	0.09	0.06	2.0	0.8	2.6	0.9	1.9	0.7

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
6101	8.9	2.9	235	78	0.91	0.30	6.98	2.30	0.53	0.17
6102	14.7	5.3	362	129	0.86	0.31	7.39	2.64	0.43	0.15
6103	8.4	3.2	283	107	0.83	0.31	6.27	2.38	0.45	0.17
6104	18.9	6.6	205	72	0.85	0.30	7.45	2.61	0.50	0.18
6105	13.5	5.2	193	74	0.96	0.37	7.31	2.80	0.51	0.20
n	5	5	5	5	5	5	5	5	5	5
Mean	12.9	4.6	256	92	0.88	0.32	7.08	2.55	0.48	0.17
S.D.	4.4	1.6	69	25	0.05	0.03	0.49	0.20	0.04	0.02

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
6101	0.84	0.28	0.83	0.27	1.67	0.55	27	9	23	8
6102	0.92	0.33	0.94	0.34	1.86	0.66	29	10	31	11
6103	0.83	0.31	0.89	0.34	1.72	0.65	27	10	29	11
6104	0.97	0.34	0.90	0.32	1.87	0.66	43	15	44	15
6105	1.01	0.39	0.98	0.38	1.99	0.76	30	11	37	14
n	5	5	5	5	5	5	5	5	5	5
Mean	0.91	0.33	0.91	0.33	1.82	0.66	31	11	33	12
S.D.	0.08	0.04	0.06	0.04	0.13	0.07	7	2	8	3

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 22 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of administration

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
Animal No.	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g
6101	50	17	34.9	11.5	48.6	16.0	83.5	27.6	617	204
6102	60	21	35.2	12.6	34.4	12.3	69.6	24.9	803	287
6103	56	21	40.0	15.2	36.6	13.9	76.6	29.0	451	171
6104	87	31	67.1	23.5	53.2	18.7	120.3	42.2	520	182
6105	67	26	41.0	15.7	42.4	16.2	83.4	32.0	717	275
n	5	5	5	5	5	5	5	5	5	5
Mean	64	23	43.6	15.7	43.0	15.4	86.7	31.1	622	224
S.D.	14	5	13.4	4.7	7.9	2.4	19.7	6.7	143	54

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 23 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1008	475	2.15	0.45	13.0	2.7	16.3	3.4	11.5	2.4
1009	518	2.27	0.44	13.2	2.5	12.1	2.3	10.9	2.1
1010	544	2.18	0.40	13.9	2.6	11.6	2.1	11.6	2.1
1011	513	2.29	0.45	14.1	2.7	10.4	2.0	9.6	1.9
1012	496	2.26	0.46	11.0	2.2	15.1	3.0	12.4	2.5
n	5	5	5	5	5	5	5	5	5
Mean	509	2.23	0.44	13.0	2.5	13.1	2.6	11.2	2.2
S.D.	26	0.06	0.02	1.2	0.2	2.5	0.6	1.0	0.2

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
1008	27.8	5.9	94	20	1.33	0.28	12.38	2.61	0.79	0.17
1009	23.0	4.4	319	62	1.42	0.27	12.50	2.41	0.54	0.10
1010	23.2	4.3	236	43	1.49	0.27	13.25	2.44	0.68	0.13
1011	20.0	3.9	297	58	1.45	0.28	12.62	2.46	0.56	0.11
1012	27.5	5.5	215	43	1.45	0.29	11.94	2.41	0.64	0.13
n	5	5	5	5	5	5	5	5	5	5
Mean	24.3	4.8	232	45	1.43	0.28	12.54	2.47	0.64	0.13
S.D.	3.3	0.9	88	17	0.06	0.01	0.47	0.08	0.10	0.03

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
1008	1.72	0.36	1.67	0.35	3.39	0.71	23	5	26	5
1009	1.60	0.31	1.65	0.32	3.25	0.63	29	6	35	7
1010	1.82	0.33	1.89	0.35	3.71	0.68	22	4	27	5
1011	1.54	0.30	1.61	0.31	3.15	0.61	28	5	33	6
1012	1.72	0.35	1.81	0.36	3.53	0.71	36	7	36	7
n	5	5	5	5	5	5	5	5	5	5
Mean	1.68	0.33	1.73	0.34	3.41	0.67	28	5	31	6
S.D.	0.11	0.03	0.12	0.02	0.22	0.05	6	1	5	1

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 24 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
1008	49	10	1.69	0.36	1.63	0.34	3.32	0.70	633	133
1009	64	12	0.69	0.13	0.59	0.11	1.28	0.25	366	71
1010	49	9	1.54	0.28	1.56	0.29	3.10	0.57	719	132
1011	61	12	1.50	0.29	1.41	0.27	2.91	0.57	722	141
1012	72	15	1.82	0.37	1.77	0.36	3.59	0.72	734	148
n	5	5	5	5	5	5	5	5	5	5
Mean	59	12	1.45	0.29	1.39	0.27	2.84	0.56	635	125
S.D.	10	2	0.44	0.10	0.47	0.10	0.91	0.19	156	31

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
1008	628	132	1261	265	1.23	0.26	1.65	0.35
1009	345	67	711	137	0.87	0.17	1.78	0.34
1010	694	128	1413	260	1.42	0.26	1.67	0.31
1011	733	143	1455	284	0.93	0.18	1.81	0.35
1012	718	145	1452	293	1.22	0.25	1.75	0.35
n	5	5	5	5	5	5	5	5
Mean	624	123	1258	248	1.13	0.22	1.73	0.34
S.D.	161	32	316	63	0.23	0.05	0.07	0.02

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 25 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4008	499	2.18	0.44	11.8	2.4	9.9	2.0	10.2	2.0
4009	491	2.02	0.41	10.0	2.0	10.4	2.1	8.2	1.7
4010	525	2.11	0.40	13.9	2.6	16.4	3.1	10.2	1.9
4011	494	2.13	0.43	14.3	2.9	11.0	2.2	10.7	2.2
4012	537	2.22	0.41	13.4	2.5	9.2	1.7	10.2	1.9
n	5	5	5	5	5	5	5	5	5
Mean	509	2.13	0.42	12.7	2.5	11.4	2.2	9.9	1.9
S.D.	21	0.08	0.02	1.8	0.3	2.9	0.5	1.0	0.2

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
4008	20.1	4.0	271	54	1.70	0.34	13.63	2.73	0.76	0.15
4009	18.6	3.8	304	62	1.46	0.30	12.71	2.59	0.74	0.15
4010	26.6	5.1	265	50	1.63	0.31	13.40	2.55	0.63	0.12
4011	21.7	4.4	259	52	1.32	0.27	13.79	2.79	0.86	0.17
4012	19.4	3.6	371	69	1.61	0.30	12.55	2.34	0.71	0.13
n	5	5	5	5	5	5	5	5	5	5
Mean	21.3	4.2	294	57	1.54	0.30	13.22	2.60	0.74	0.14
S.D.	3.2	0.6	46	8	0.15	0.03	0.56	0.18	0.08	0.02

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
4008	1.74	0.35	2.01	0.40	3.75	0.75	26	5	30	6
4009	1.69	0.34	1.63	0.33	3.32	0.68	24	5	25	5
4010	1.90	0.36	1.84	0.35	3.74	0.71	23	4	26	5
4011	1.60	0.32	1.80	0.36	3.40	0.69	27	5	26	5
4012	1.77	0.33	1.95	0.36	3.72	0.69	31	6	35	7
n	5	5	5	5	5	5	5	5	5	5
Mean	1.74	0.34	1.85	0.36	3.59	0.70	26	5	28	6
S.D.	0.11	0.02	0.15	0.03	0.21	0.03	3	1	4	1

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 26 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

	Adrenal-RL		Testis-R		Testis-L		Testis-RL		Epididymis-R	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g
4008	56	11	1.70	0.34	1.68	0.34	3.38	0.68	648	130
4009	49	10	1.54	0.31	1.50	0.31	3.04	0.62	538	110
4010	49	9	1.66	0.32	1.72	0.33	3.38	0.64	651	124
4011	53	11	1.41	0.29	1.41	0.29	2.82	0.57	655	133
4012	66	12	1.77	0.33	1.75	0.33	3.52	0.66	624	116
n	5	5	5	5	5	5	5	5	5	5
Mean	55	11	1.62	0.32	1.61	0.32	3.23	0.63	623	123
S.D.	7	1	0.14	0.02	0.15	0.02	0.29	0.04	49	10

	Epididymis-L		Epididymis-RL		Prostate		Seminalvesicle	
	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g
4008	693	139	1341	269	0.85	0.17	1.88	0.38
4009	547	111	1085	221	1.44	0.29	1.77	0.36
4010	625	119	1276	243	0.97	0.18	2.23	0.42
4011	669	135	1324	268	1.21	0.24	1.67	0.34
4012	644	120	1268	236	1.11	0.21	1.77	0.33
n	5	5	5	5	5	5	5	5
Mean	636	125	1259	247	1.12	0.22	1.86	0.37
S.D.	56	12	102	21	0.23	0.05	0.22	0.04

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 27 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
5106	254	2.09	0.82	12.8	5.0	8.8	3.5	9.1	3.6
5107	290	1.90	0.66	17.3	6.0	7.2	2.5	8.0	2.8
5108	258	1.91	0.74	14.2	5.5	8.4	3.3	7.2	2.8
5109	297	1.90	0.64	22.7	7.6	10.1	3.4	10.5	3.5
5110	276	2.05	0.74	14.1	5.1	9.7	3.5	7.3	2.6
n	5	5	5	5	5	5	5	5	5
Mean	275	1.97	0.72	16.2	5.8	8.8	3.2	8.4	3.1
S.D.	19	0.09	0.07	4.0	1.1	1.1	0.4	1.4	0.5

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
5106	17.9	7.0	232	91	0.93	0.37	6.47	2.55	0.39	0.15
5107	15.2	5.2	216	74	0.88	0.30	6.16	2.12	0.46	0.16
5108	15.6	6.0	204	79	0.92	0.36	6.29	2.44	0.36	0.14
5109	20.6	6.9	181	61	0.94	0.32	8.09	2.72	0.48	0.16
5110	17.0	6.2	242	88	0.85	0.31	6.63	2.40	0.43	0.16
n	5	5	5	5	5	5	5	5	5	5
Mean	17.3	6.3	215	79	0.90	0.33	6.73	2.45	0.42	0.15
S.D.	2.2	0.7	24	12	0.04	0.03	0.78	0.22	0.05	0.01

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
5106	0.87	0.34	0.95	0.37	1.82	0.72	32	13	35	14
5107	0.86	0.30	0.89	0.31	1.75	0.60	25	9	27	9
5108	0.88	0.34	0.87	0.34	1.75	0.68	31	12	34	13
5109	0.92	0.31	1.02	0.34	1.94	0.65	35	12	40	13
5110	0.95	0.34	1.04	0.38	1.99	0.72	38	14	38	14
n	5	5	5	5	5	5	5	5	5	5
Mean	0.90	0.33	0.95	0.35	1.85	0.67	32	12	35	13
S.D.	0.04	0.02	0.08	0.03	0.11	0.05	5	2	5	2

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 28 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
5106	67	26	56.3	22.2	49.2	19.4	105.5	41.5	761	300
5107	52	18	34.8	12.0	48.4	16.7	83.2	28.7	519	179
5108	65	25	39.6	15.3	34.5	13.4	74.1	28.7	511	198
5109	75	25	20.3	6.8	22.7	7.6	43.0	14.5	626	211
5110	76	28	40.1	14.5	45.2	16.4	85.3	30.9	854	309
n	5	5	5	5	5	5	5	5	5	5
Mean	67	24	38.2	14.2	40.0	14.7	78.2	28.9	654	239
S.D.	10	4	12.9	5.6	11.3	4.5	22.8	9.6	151	61

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 29 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
6106	289	1.96	0.68	17.4	6.0	12.2	4.2	11.6	4.0
6107	294	1.99	0.68	14.1	4.8	10.8	3.7	8.7	3.0
6108	273	2.00	0.73	20.3	7.4	11.1	4.1	11.2	4.1
6109	292	1.89	0.65	18.9	6.5	7.7	2.6	5.8	2.0
6110	281	1.99	0.71	16.9	6.0	6.9	2.5	5.4	1.9
n	5	5	5	5	5	5	5	5	5
Mean	286	1.97	0.69	17.5	6.1	9.7	3.4	8.5	3.0
S.D.	9	0.05	0.03	2.3	0.9	2.3	0.8	2.9	1.1

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
6106	23.8	8.2	229	79	0.98	0.34	7.08	2.45	0.56	0.19
6107	19.5	6.6	231	79	1.00	0.34	7.77	2.64	0.49	0.17
6108	22.3	8.2	228	84	0.94	0.34	7.52	2.75	0.44	0.16
6109	13.5	4.6	156	53	1.03	0.35	6.95	2.38	0.48	0.16
6110	12.3	4.4	338	120	0.90	0.32	6.71	2.39	0.63	0.22
n	5	5	5	5	5	5	5	5	5	5
Mean	18.3	6.4	236	83	0.97	0.34	7.21	2.52	0.52	0.18
S.D.	5.2	1.9	65	24	0.05	0.01	0.43	0.16	0.08	0.03

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
6106	0.94	0.33	0.99	0.34	1.93	0.67	26	9	31	11
6107	0.95	0.32	0.97	0.33	1.92	0.65	41	14	45	15
6108	1.05	0.38	1.11	0.41	2.16	0.79	42	15	40	15
6109	0.95	0.33	0.98	0.34	1.93	0.66	39	13	42	14
6110	0.95	0.34	0.96	0.34	1.91	0.68	36	13	38	14
n	5	5	5	5	5	5	5	5	5	5
Mean	0.97	0.34	1.00	0.35	1.97	0.69	37	13	39	14
S.D.	0.05	0.02	0.06	0.03	0.11	0.06	6	2	5	2

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 30 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : End of recovery

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
Animal No.	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g	AB mg	RE mg/100g
6106	57	20	39.1	13.5	37.2	12.9	76.3	26.4	985	341
6107	86	29	45.9	15.6	43.7	14.9	89.6	30.5	823	280
6108	82	30	58.4	21.4	57.8	21.2	116.2	42.6	488	179
6109	81	28	36.5	12.5	44.8	15.3	81.3	27.8	593	203
6110	74	26	43.0	15.3	36.6	13.0	79.6	28.3	965	343
n	5	5	5	5	5	5	5	5	5	5
Mean	76	27	44.6	15.7	44.0	15.5	88.6	31.1	771	269
S.D.	11	4	8.5	3.5	8.5	3.4	16.2	6.6	222	76

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 31 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : All littermates died

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4109	314	1.92	0.61	12.4	3.9	5.9	1.9	8.7	2.8
n	1	1	1	1	1	1	1	1	1
Mean	314	1.92	0.61	12.4	3.9	5.9	1.9	8.7	2.8
S.D.									

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
4109	14.6	4.6	129	41	0.96	0.31	11.13	3.54	0.54	0.17
n	1	1	1	1	1	1	1	1	1	1
Mean	14.6	4.6	129	41	0.96	0.31	11.13	3.54	0.54	0.17
S.D.										

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
4109	1.10	0.35	1.05	0.33	2.15	0.68	37	12	38	12
n	1	1	1	1	1	1	1	1	1	1
Mean	1.10	0.35	1.05	0.33	2.15	0.68	37	12	38	12
S.D.										

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4109	75	24	52.7	16.8	47.5	15.1	100.2	31.9	3528	1124
n	1	1	1	1	1	1	1	1	1	1
Mean	75	24	52.7	16.8	47.5	15.1	100.2	31.9	3528	1124
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Organ weight

Stage : Not copulated

Sex : Female

Dose : hexaoxanon 100 mg/kg

Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
2101	311	1.90	0.61	14.4	4.6	5.5	1.8	9.0	2.9
n	1	1	1	1	1	1	1	1	1
Mean	311	1.90	0.61	14.4	4.6	5.5	1.8	9.0	2.9
S.D.									

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
2101	14.5	4.7	200	64	0.89	0.29	7.45	2.40	0.45	0.14
n	1	1	1	1	1	1	1	1	1	1
Mean	14.5	4.7	200	64	0.89	0.29	7.45	2.40	0.45	0.14
S.D.										

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
2101	0.99	0.32	0.94	0.30	1.93	0.62	30	10	33	11
n	1	1	1	1	1	1	1	1	1	1
Mean	0.99	0.32	0.94	0.30	1.93	0.62	30	10	33	11
S.D.										

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
2101	63	20	35.3	11.4	52.9	17.0	88.2	28.4	678	218
n	1	1	1	1	1	1	1	1	1	1
Mean	63	20	35.3	11.4	52.9	17.0	88.2	28.4	678	218
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Organ weight

Stage : Undelivered

Sex : Female

Dose : hexaoxanon 0 mg/kg

Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1109	312	1.99	0.64	15.8	5.1	9.5	3.0	8.7	2.8
n	1	1	1	1	1	1	1	1	1
Mean	312	1.99	0.64	15.8	5.1	9.5	3.0	8.7	2.8
S.D.									

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
1109	18.2	5.8	304	97	0.99	0.32	9.91	3.18	0.51	0.16
n	1	1	1	1	1	1	1	1	1	1
Mean	18.2	5.8	304	97	0.99	0.32	9.91	3.18	0.51	0.16
S.D.										

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
1109	1.09	0.35	1.10	0.35	2.19	0.70	31	10	32	10
n	1	1	1	1	1	1	1	1	1	1
Mean	1.09	0.35	1.10	0.35	2.19	0.70	31	10	32	10
S.D.										

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
1109	63	20	56.5	18.1	37.4	12.0	93.9	30.1	487	156
n	1	1	1	1	1	1	1	1	1	1
Mean	63	20	56.5	18.1	37.4	12.0	93.9	30.1	487	156
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 8 - 34 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Organ weight Stage : Undelivered

Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

	Body weight	Brain		Pituitary		Thyroid-R		Thyroid-L	
		AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g	g/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4104	326	2.17	0.67	21.0	6.4	16.8	5.2	10.0	3.1
n	1	1	1	1	1	1	1	1	1
Mean	326	2.17	0.67	21.0	6.4	16.8	5.2	10.0	3.1
S.D.									

	Thyroid-RL		Thymus		Heart		Liver		Spleen	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	g	g/100g	g	g/100g	g	g/100g
4104	26.8	8.2	314	96	1.16	0.36	12.36	3.79	0.66	0.20
n	1	1	1	1	1	1	1	1	1	1
Mean	26.8	8.2	314	96	1.16	0.36	12.36	3.79	0.66	0.20
S.D.										

	Kidney-R		Kidney-L		Kidney-RL		Adrenal-R		Adrenal-L	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	g	g/100g	g	g/100g	g	g/100g	mg	mg/100g	mg	mg/100g
4104	1.13	0.35	1.21	0.37	2.34	0.72	39	12	50	15
n	1	1	1	1	1	1	1	1	1	1
Mean	1.13	0.35	1.21	0.37	2.34	0.72	39	12	50	15
S.D.										

	Adrenal-RL		Ovary-R		Ovary-L		Ovary-RL		Uterus	
	AB	RE	AB	RE	AB	RE	AB	RE	AB	RE
Animal No.	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g	mg	mg/100g
4104	89	27	66.1	20.3	62.5	19.2	128.6	39.4	771	237
n	1	1	1	1	1	1	1	1	1	1
Mean	89	27	66.1	20.3	62.5	19.2	128.6	39.4	771	237
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 9-1(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1001 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration,interstitial: mild mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-2(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1002 Male 0 mg/kg Day 43 End of administration

Gross pathology:

Liver	Focus,dark red: 1 present 5x4mm
Other tissues	Not remarkable

Histopathology:

Liver	Angiectasis: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-3(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1003 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration,interstitial: mild mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-4(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1004 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Kidney	Basophilia,tubular: minimal
Prostate	Cell infiltration,interstitial: minimal mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Lymph node,mesenteric
Lymph node,submandibular, Liver, Lung(bronchus), Mammary gland,inguinal
Parathyroid, Pancreas, Pituitary, Salivary gland,submandibular, Sciatic nerve
Spleen, Stomach, Skeletal muscle,femoral, Seminal vesicle(coagulating gland)
Spinal cord,thoracic, Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-5(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1005 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration,interstitial: mild mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-6(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1006 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-7(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1007 Male 0 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-8(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1008 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-9(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1009 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

Testis	Small: mild, bilateral
Other tissues	Not remarkable

Histopathology:

Epididymis	Hypospermia: severe, bilateral
Pituitary	Castration cell: mild
Testis	Atrophy,seminiferous tubular: severe, bilateral Hyperplasia,Leydig cell,diffuse: minimal, bilateral

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Prostate
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-10(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1010 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-11(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1011 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-12(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1012 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-13(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2001 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration,interstitial: minimal mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-14(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2002 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-15(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2003 Male 100 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-16(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2004 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-17(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2005 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-18(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2006 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-19(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2007 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-20(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2008 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-21(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2009 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-22(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2010 Male 100 mg/kg Day 43 End of administration

Gross pathology:

Pituitary	Cyst: 1 present 1x1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-23(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2011 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-24(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2012 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-25(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3001 Male 300 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 2x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-26(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3002 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-27(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3003 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-28(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3004 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-29(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3005 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-30(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3006 Male 300 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-31(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3007 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-32(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3008 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-33(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3009 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-34(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3010 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-35(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3011 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-36(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3012 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-37(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4001 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Heart	Cell infiltration: minimal, focal mononuclear
Prostate	Cell infiltration,interstitial: minimal mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-38(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4002 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Thyroid Cyst,ultimobranchial: minimal, unilateral

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Urinary bladder

Appendix 9-39(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4003 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland), Spinal cord,thoracic
Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-40(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4004 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Pituitary	Cyst: minimal
Prostate	Cell infiltration,interstitial: minimal mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Parathyroid, Pancreas, Salivary gland,submandibular
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus, Trachea
Thyroid, Urinary bladder

Appendix 9-41(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4005 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

Kidney	Basophilia,tubular: minimal
Prostate	Cell infiltration,interstitial: mild mononuclear
Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Epididymis, Eye
Heart, Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Lymph node,mesenteric
Lymph node,submandibular, Liver, Lung(bronchus), Mammary gland,inguinal
Parathyroid, Pancreas, Pituitary, Salivary gland,submandibular, Sciatic nerve
Spleen, Skeletal muscle,femoral, Seminal vesicle(coagulating gland)
Spinal cord,thoracic, Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-42(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4006 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-43(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4007 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-44(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4008 Male 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-45(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4009 Male 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-46(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4010 Male 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-47(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4011 Male 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-48(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4012 Male 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-49(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1101 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-50(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1102 Female 0 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-51(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1103 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-52(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1104 Female 0 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-53(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1105 Female 0 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Thyroid Cyst,ultimobranchial: minimal, unilateral

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Urinary bladder
Uterus, Vagina

Appendix 9-54(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1106 Female 0 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-55(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1107 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Skeletal muscle,femoral
Spinal cord,thoracic, Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-56(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1108 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-57(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1109 Female 0 mg/kg Day 41 Undelivered

Gross pathology:

All tissues	Not remarkable

Histopathology:

Eye	Dysplasia,retinal: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-58(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1110 Female 0 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-59(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1111 Female 0 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-60(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 1112 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 2x2mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-61(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2101 Female 100 mg/kg Day 54 Undelivered

Gross pathology:

All tissues	Not remarkable

Histopathology:

Pancreas	Atrophy,acinar,focal: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-62(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2102 Female 100 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-63(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2103 Female 100 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-64(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2104 Female 100 mg/kg Day 48 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-65(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2105 Female 100 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-66(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2106 Female 100 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-67(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2107 Female 100 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-68(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2108 Female 100 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-69(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2109 Female 100 mg/kg Day 46 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-70(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2110 Female 100 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-71(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2111 Female 100 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-72(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 2112 Female 100 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-73(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3101 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-74(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3102 Female 300 mg/kg Day 44 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red glandular stomach: 3 present 1x1mm,1x1mm,1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-75(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3103 Female 300 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-76(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3104 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-77(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3105 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-78(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3106 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-79(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3107 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-80(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3108 Female 300 mg/kg Day 48 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-81(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3109 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-82(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3110 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-83(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3111 Female 300 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-84(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 3112 Female 300 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-85(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4101 Female 1000 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-86(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4102 Female 1000 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-87(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4103 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-88(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4104 Female 1000 mg/kg Day 46 Undelivered

Gross pathology:

All tissues	Not remarkable

Histopathology:

Mammary gland,inguinal	Hyperplasia,lobular,diffuse: minimal
Ovary	Hypertrophy,corpora lutea: minimal, bilateral
Pancreas	Cell infiltration,focal: minimal mononuclear

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Parathyroid, Pituitary, Salivary gland,submandibular, Sciatic nerve, Spleen
Stomach, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-89(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4105 Female 1000 mg/kg Day 48 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-90(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4106 Female 1000 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-91(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4107 Female 1000 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-92(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4108 Female 1000 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-93(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4109 Female 1000 mg/kg Day 42 All littermates died

Gross pathology:

All tissues Not remarkable

Histopathology:

Thymus Atrophy: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Trachea, Thyroid, Urinary bladder
Uterus, Vagina

Appendix 9-94(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4110 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-95(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4111 Female 1000 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-96(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 4112 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-97(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5101 Female 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-98(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5102 Female 0 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x2mm
Other tissues	Not remarkable

Histopathology:

Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Skeletal muscle,femoral
Spinal cord,thoracic, Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-99(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5103 Female 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-100(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5104 Female 0 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 2 present 1x1mm,1x1mm
Other tissues	Not remarkable

Histopathology:

Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Skeletal muscle,femoral
Spinal cord,thoracic, Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-101(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5105 Female 0 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 1 present 1x2mm
Other tissues	Not remarkable

Histopathology:

Eye	Dysplasia,retinal: minimal
Kidney	Basophilia,tubular: minimal
Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Lymph node,mesenteric
Lymph node,submandibular, Liver, Lung(bronchus), Mammary gland,inguinal, Ovary
Parathyroid, Pancreas, Pituitary, Salivary gland,submandibular, Sciatic nerve
Spleen, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-102(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5106 Female 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-103(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5107 Female 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-104(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5108 Female 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-105(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5109 Female 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-106(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 5110 Female 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-107(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6101 Female 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-108(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6102 Female 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-109(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6103 Female 1000 mg/kg Day 43 End of administration

Gross pathology:

Stomach	Focus,dark red glandular stomach: 2 present 1x1mm,2x1mm
Other tissues	Not remarkable

Histopathology:

Stomach	Erosion/Ulcer,glandular stomach: minimal

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Skeletal muscle,femoral
Spinal cord,thoracic, Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-110(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6104 Female 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-111(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6105 Female 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

Following tissues : Not remarkable

Adrenal, Bone+Bone marrow,femoral, Cerebellum(pons), Cerebrum, Eye, Heart
Intestine,duodenum, Intestine,jejunum, Intestine,ileum(Peyer's patch)
Intestine,cecum, Intestine,colon, Intestine,rectum, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Spinal cord,thoracic, Thymus, Trachea, Thyroid
Urinary bladder, Uterus, Vagina

Appendix 9-112(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6106 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

Stomach	Focus,dark red glandular stomach: 3 present 1x1mm,1x1mm,1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-113(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6107 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-114(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6108 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-115(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6109 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-116(1/1) Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Individual gross and histopathological findings

Animal No. 6110 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 10 - 1

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Estrus cycles and copulation

Study No. : R-1168

Generation : F0 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Before mating (day) 1	2	3	4	5	6	7	8	9	10	11	12	13	14
1101	M	D	P	E	M	D	P	E	E	M	D	P	E	M
1102	M	D	P	E	M	D	D	P	E	M	D	D	P	E
1103	E	M	D	P	E	M	D	P	E	M	D	P	E	M
1104	E	M	D	P	E	M	D	P	E	M	D	P	E	M
1105	E	M	D	D	P	E	M	D	D	P	E	M	D	D
1106	D	P	E	M	D	P	E	M	D	P	E	M	D	P
1107	E	M	D	P	E	M	D	P	E	M	D	P	E	M
1108	E	E	M	D	P	E	E	M	D	P	E	E	M	D
1109	M	D	P	E	M	D	P	E	M	D	P	E	M	D
1110	M	D	P	E	M	D	P	E	M	D	D	P	E	M
1111	D	P	E	M	D	P	E	M	D	P	E	M	D	P
1112	E	M	D	P	E	M	D	P	E	M	D	P	E	M

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 2

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	/Before mating (day) 15	Length of estrous cycle (days)			Mean	Number of estrus	Animal with abnormal estrous cycle
1101	D	4	5		4.5	3	-
1102	M	5	5		5.0	3	-
1103	D	4	4	4	4.0	4	-
1104	D	4	4	4	4.0	4	-
1105	P	5	5		5.0	3	-
1106	E	4	4	4	4.0	4	-
1107	D	4	4	4	4.0	4	-
1108	P	5	5		5.0	3	-
1109	P	4	4		4.0	3	-
1110	D	4	5		4.5	3	-
1111	E	4	4	4	4.0	4	-
1112	D	4	4	4	4.0	4	-

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 3

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Before mating (day) 1	2	3	4	5	6	7	8	9	10	11	12	13	14
2101	E	M	D	P	E	M	D	P	E	M	D	P	E	M
2102	E	M	D	P	E	M	D	P	E	M	D	P	E	M
2103	P	E	M	D	P	E	M	D	P	E	M	D	P	E
2104	M	D	D	P	E	M	D	D	P	E	M	D	D	P
2105	D	P	E	M	D	P	E	M	D	P	E	M	D	P
2106	M	D	P	E	M	D	P	E	M	D	P	E	M	D
2107	M	D	P	E	M	D	P	E	M	D	P	E	M	D
2108	D	P	E	M	D	P	E	M	D	P	E	M	D	P
2109	D	P	E	M	D	P	E	M	D	P	E	M	D	P
2110	P	E	M	D	P	E	M	D	P	E	M	D	P	E
2111	M	D	P	E	M	D	P	E	M	D	P	E	M	D
2112	M	D	P	E	M	D	D	P	E	M	D	P	E	M

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 4

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Estrus cycles and copulation

Study No. : R-1168

Generation : F0 Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	/Before mating (day) 15	Length of estrous cycle (days)			Mean	Number of estrus	Animal with abnormal estrous cycle
2101	D	4	4	4	4.0	4	-
2102	D	4	4	4	4.0	4	-
2103	M	4	4	4	4.0	4	-
2104	E	5	5		5.0	3	-
2105	E	4	4	4	4.0	4	-
2106	P	4	4		4.0	3	-
2107	P	4	4		4.0	3	-
2108	E	4	4	4	4.0	4	-
2109	E	4	4	4	4.0	4	-
2110	M	4	4	4	4.0	4	-
2111	P	4	4		4.0	3	-
2112	D	5	4		4.5	3	-

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 5

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Before mating (day) 1	2	3	4	5	6	7	8	9	10	11	12	13	14
3101	P	E	M	D	D	P	E	M	D	D	P	E	M	D
3102	E	E	M	D	P	E	E	M	D	P	E	E	M	D
3103	E	M	D	P	E	M	D	P	E	M	D	P	E	M
3104	P	E	M	D	P	E	M	D	P	E	M	D	P	E
3105	D	P	E	M	D	D	P	E	M	D	D	P	E	M
3106	P	E	M	D	P	E	M	D	P	E	M	D	P	E
3107	E	M	D	P	E	E	M	D	P	E	E	M	D	P
3108	E	M	D	P	E	M	D	P	E	M	D	P	E	M
3109	M	D	P	E	M	D	P	E	M	D	P	E	M	D
3110	M	D	P	E	M	D	P	E	M	D	P	E	M	D
3111	E	M	D	P	E	E	M	D	P	E	E	M	D	P
3112	M	D	P	E	M	D	P	E	E	M	D	D	P	E

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 6

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	/Before mating (day) 15	Length of estrous cycle (days)			Mean	Number of estrus	Animal with abnormal estrous cycle
3101	D	5	5		5.0	3	-
3102	P	5	5		5.0	3	-
3103	D	4	4	4	4.0	4	-
3104	M	4	4	4	4.0	4	-
3105	D	5	5		5.0	3	-
3106	M	4	4	4	4.0	4	-
3107	E	4	5	5	4.7	4	-
3108	D	4	4	4	4.0	4	-
3109	P	4	4		4.0	3	-
3110	P	4	4		4.0	3	-
3111	E	4	5	5	4.7	4	-
3112	M	4	6		5.0	3	+

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 7

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Before mating (day) 1	2	3	4	5	6	7	8	9	10	11	12	13	14
4101	P	E	M	D	P	E	M	D	P	E	M	D	P	E
4102	E	M	D	P	E	M	D	P	E	M	D	P	E	M
4103	E	M	D	P	E	M	D	P	E	M	D	P	E	M
4104	D	P	E	M	D	P	E	E	M	D	P	E	M	D
4105	D	P	E	M	D	D	P	E	E	M	D	P	E	M
4106	E	M	D	D	P	E	M	D	P	E	E	M	D	P
4107	P	E	M	D	P	E	M	D	P	E	E	M	D	P
4108	P	E	M	D	P	E	M	D	P	E	M	D	P	E
4109	M	D	P	E	M	D	D	P	E	M	D	P	E	E
4110	E	M	D	P	E	M	D	P	E	M	D	P	E	M
4111	M	D	P	E	M	D	P	E	M	D	P	E	M	D
4112	M	D	P	E	M	D	P	E	M	D	P	E	M	D

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 10 - 8

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Estrus cycles and copulation

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	/Before mating (day) 15	Length of estrous cycle (days)			Mean	Number of estrus	Animal with abnormal estrous cycle
4101	M	4	4	4	4.0	4	-
4102	D	4	4	4	4.0	4	-
4103	D	4	4	4	4.0	4	-
4104	D	4	5		4.5	3	-
4105	D	5	5		5.0	3	-
4106	E	5	4	5	4.7	4	-
4107	E	4	4	5	4.3	4	-
4108	M	4	4	4	4.0	4	-
4109	M	5	4		4.5	3	-
4110	D	4	4	4	4.0	4	-
4111	P	4	4		4.0	3	-
4112	P	4	4		4.0	3	-

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Male Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
1001	2	1101	+	+
1002	3	1102	+	+
1003	2	1103	+	+
1004	2	1104	+	+
1005	1	1105	+	+
1006	4	1106	+	+
1007	2	1107	+	+
1008	2	1108	+	+
1009	1	1109	+	-
1010	2	1110	+	+
1011	4	1111	+	+
1012	2	1112	+	+
n	12		12	12
Mean	2.3			
S.D.	1.0			
No. of positives			12	11
%			100.0 d)	91.7 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of males which impregnated females / Number of copulated males)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Male Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
2001	-	2101	-	
2002	2	2102	+	+
2003	3	2103	+	+
2004	5	2104	+	+
2005	4	2105	+	+
2006	1	2106	+	+
2007	1	2107	+	+
2008	4	2108	+	+
2009	4	2109	+	+
2010	3	2110	+	+
2011	1	2111	+	+
2012	2	2112	+	+
n	11		12	11
Mean	2.7			
S.D.	1.4			
No. of positives			11	11
%			91.7 d)	100.0 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of males which impregnated females / Number of copulated males)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Male Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
3001	2	3101	+	+
3002	2	3102	+	+
3003	2	3103	+	+
3004	3	3104	+	+
3005	3	3105	+	+
3006	3	3106	+	+
3007	1	3107	+	+
3008	6	3108	+	+
3009	1	3109	+	+
3010	1	3110	+	+
3011	1	3111	+	+
3012	4	3112	+	+
n	12		12	12
Mean	2.4			
S.D.	1.5			
No. of positives			12	12
%			100.0 d)	100.0 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of males which impregnated females / Number of copulated males)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Male Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
4001	3	4101	+	+
4002	2	4102	+	+
4003	2	4103	+	+
4004	6	4104	+	-
4005	6	4105	+	+
4006	1	4106	+	+
4007	4	4107	+	+
4008	3	4108	+	+
4009	3	4109	+	+
4010	2	4110	+	+
4011	1	4111	+	+
4012	2	4112	+	+
n	12		12	12
Mean	2.9			
S.D.	1.7			
No. of positives			12	11
%			100.0 d)	91.7 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of males which impregnated females / Number of copulated males)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Female Dose : hexaoxanon 0 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
1101	2	1001	+	+
1102	3	1002	+	+
1103	2	1003	+	+
1104	2	1004	+	+
1105	1	1005	+	+
1106	4	1006	+	+
1107	2	1007	+	+
1108	2	1008	+	+
1109	1	1009	+	-
1110	2	1010	+	+
1111	4	1011	+	+
1112	2	1012	+	+
n	12		12	12
Mean	2.3			
S.D.	1.0			
No. of positives			12	11
%			100.0 d)	91.7 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of pregnant females / Number of copulated females)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Female Dose : hexaoxanon 100 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
2101	-	2001	-	
2102	2	2002	+	+
2103	3	2003	+	+
2104	5	2004	+	+
2105	4	2005	+	+
2106	1	2006	+	+
2107	1	2007	+	+
2108	4	2008	+	+
2109	4	2009	+	+
2110	3	2010	+	+
2111	1	2011	+	+
2112	2	2012	+	+
n	11		12	11
Mean	2.7			
S.D.	1.4			
No. of positives			11	11
%			91.7 d)	100.0 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of pregnant females / Number of copulated females)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Female Dose : hexaoxanon 300 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
3101	2	3001	+	+
3102	2	3002	+	+
3103	2	3003	+	+
3104	3	3004	+	+
3105	3	3005	+	+
3106	3	3006	+	+
3107	1	3007	+	+
3108	6	3008	+	+
3109	1	3009	+	+
3110	1	3010	+	+
3111	1	3011	+	+
3112	4	3012	+	+
n	12		12	12
Mean	2.4			
S.D.	1.5			
No. of positives			12	12
%			100.0 d)	100.0 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of pregnant females / Number of copulated females)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 11 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Reproductive performance

Generation : F0 Sex : Female Dose : hexaoxanon 1000 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
4101	3	4001	+	+
4102	2	4002	+	+
4103	2	4003	+	+
4104	6	4004	+	-
4105	6	4005	+	+
4106	1	4006	+	+
4107	4	4007	+	+
4108	3	4008	+	+
4109	3	4009	+	+
4110	2	4010	+	+
4111	1	4011	+	+
4112	2	4012	+	+
n	12		12	12
Mean	2.9			
S.D.	1.7			
No. of positives			12	11
%			100.0 d)	91.7 e)

a)-: Not copulation
b)+: Copulation, -: Not copulation
c)+: Pregnant, -: Non-pregnant
d): (Number of copulated animals / Number of mated animals)×100
e): (Number of pregnant females / Number of copulated females)×100
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 12 - 1

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Delivery data

Generation : F0 | Dose : hexaoxanon 0 mg/kg | Species : Rat

Dam No.	Gestation period (day)	Number of corpora lutea	Number of implan-tation	Preimplan-tation loss (%) a)	Implantation index (%) b)	Delivery index (%) c)	Live birth index (%) d)	Number of offspring	Number of live newborns			Number of dead newborns			
									M	F	Total	M	F	U	Total
1101	22	16(7/9)	16(7/9)	0.0	100.0	93.8	100.0	15	8	7	15	0	0	0	0
1102	22.5	16(6/10)	16(6/10)	0.0	100.0	93.8	100.0	15	7	8	15	0	0	0	0
1103	22	16(8/8)	16(8/8)	0.0	100.0	93.8	93.3	15	7	7	14	0	1	0	1
1104	23	17(8/9)	15(7/8)	11.8	88.2	93.3	100.0	14	7	7	14	0	0	0	0
1105	22.5	18(9/9)	18(9/9)	0.0	100.0	83.3	100.0	15	3	12	15	0	0	0	0
1106	22	16(8/8)	16(8/8)	0.0	100.0	100.0	100.0	16	7	9	16	0	0	0	0
1107	22	16(11/5)	16(11/5)	0.0	100.0	93.8	100.0	15	6	9	15	0	0	0	0
1108	22	17(9/8)	17(9/8)	0.0	100.0	88.2	100.0	15	9	6	15	0	0	0	0
1110	21.5	17(10/7)	17(10/7)	0.0	100.0	100.0	100.0	17	7	10	17	0	0	0	0
1111	22	16(5/11)	15(4/11)	6.3	93.8	93.3	100.0	14	5	9	14	0	0	0	0
1112	22.5	16(5/11)	16(5/11)	0.0	100.0	100.0	93.8	16	6	9	15	0	1	0	1
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	22.2	16.5	16.2	1.6	98.4	93.9	98.8	15.2	6.5	8.5	15.0	0.0	0.2	0.0	0.2
S.D.	0.4	0.7	0.9	3.9	3.9	5.1	2.6	0.9	1.6	1.7	0.9	0.0	0.4	0.0	0.4

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

Animal No.1109: Non-pregnancy

a): [(Number of corpora lutea - Number of implantation) / Number of corpora lutea]×100

b): (Number of implantation / Number of corpora lutea)×100

c): (Number of delivered pups / Number of implantation)×100

d): (Number of live borns / Number of delivered pups)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 12 - 2

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Delivery data

Generation : F0 | Dose : hexaoxanon 100 mg/kg | Species : Rat

Dam No.	Gestation period (day)	Number of corpora lutea	Number of implan-tation	Preimplan-tation loss (%) a)	Implantation index (%) b)	Delivery index (%) c)	Live birth index (%) d)	Number of offspring	Number of live newborns			Number of dead newborns			
									M	F	Total	M	F	U	Total
2102	22.5	16(7/9)	16(7/9)	0.0	100.0	100.0	100.0	16	4	12	16	0	0	0	0
2103	22.5	17(7/10)	17(7/10)	0.0	100.0	100.0	100.0	17	9	8	17	0	0	0	0
2104	23	16(11/5)	16(11/5)	0.0	100.0	100.0	87.5	16	5	9	14	2	0	0	2
2105	22	16(8/8)	15(8/7)	6.3	93.8	100.0	93.3	15	8	6	14	1	0	0	1
2106	22	19(10/9)	19(10/9)	0.0	100.0	89.5	100.0	17	10	7	17	0	0	0	0
2107	22	18(13/5)	15(13/2)	16.7	83.3	100.0	100.0	15	8	7	15	0	0	0	0
2108	22	18(10/8)	16(9/7)	11.1	88.9	93.8	93.3	15	9	5	14	0	1	0	1
2109	22	16(10/6)	16(10/6)	0.0	100.0	87.5	100.0	14	7	7	14	0	0	0	0
2110	22	19(10/9)	18(9/9)	5.3	94.7	100.0	100.0	18	6	12	18	0	0	0	0
2111	22	16(4/12)	15(3/12)	6.3	93.8	93.3	100.0	14	7	7	14	0	0	0	0
2112	22	19(10/9)	19(10/9)	0.0	100.0	89.5	88.2	17	10	5	15	1	1	0	2
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	22.2	17.3	16.5	4.2	95.9	95.8	96.6	15.8	7.5	7.7	15.3	0.4	0.2	0.0	0.5
S.D.	0.3	1.3	1.5	5.7	5.6	5.1	5.1	1.3	2.0	2.4	1.5	0.7	0.4	0.0	0.8

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

Animal No.2101: Not copulated

a): [(Number of corpora lutea - Number of implantation) / Number of corpora lutea]×100

b): (Number of implantation / Number of corpora lutea)×100

c): (Number of delivered pups / Number of implantation)×100

d): (Number of live borns / Number of delivered pups)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 12 - 3

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Delivery data

Generation : F0 | Dose : hexaoxanon 300 mg/kg | Species : Rat

Dam No.	Gestation period (day)	Number of corpora lutea	Number of implan-tation	Preimplan-tation loss (%) a)	Implantation index (%) b)	Delivery index (%) c)	Live birth index (%) d)	Number of offspring	Number of live newborns			Number of dead newborns			
									M	F	Total	M	F	U	Total
3101	21.5	16(11/5)	16(11/5)	0.0	100.0	100.0	100.0	16	6	10	16	0	0	0	0
3102	22	17(7/10)	17(7/10)	0.0	100.0	88.2	100.0	15	4	11	15	0	0	0	0
3103	22	15(7/8)	15(7/8)	0.0	100.0	100.0	100.0	15	5	10	15	0	0	0	0
3104	22	17(7/10)	17(7/10)	0.0	100.0	88.2	100.0	15	9	6	15	0	0	0	0
3105	22	16(8/8)	16(8/8)	0.0	100.0	100.0	100.0	16	8	8	16	0	0	0	0
3106	22.5	15(8/7)	15(8/7)	0.0	100.0	100.0	86.7	15	3	10	13	0	2	0	2
3107	22	16(7/9)	16(7/9)	0.0	100.0	93.8	93.3	15	9	5	14	0	0	1	1
3108	22	16(7/9)	16(7/9)	0.0	100.0	81.3	100.0	13	7	6	13	0	0	0	0
3109	22	13(7/6)	12(7/5)	7.7	92.3	100.0	100.0	12	6	6	12	0	0	0	0
3110	22	18(9/9)	17(9/8)	5.6	94.4	88.2	100.0	15	6	9	15	0	0	0	0
3111	21.5	15(10/5)	15(10/5)	0.0	100.0	100.0	100.0	15	8	7	15	0	0	0	0
3112	22	16(11/5)	16(11/5)	0.0	100.0	100.0	100.0	16	8	8	16	0	0	0	0
n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mean	22.0	15.8	15.7	1.1	98.9	95.0	98.3	14.8	6.6	8.0	14.6	0.0	0.2	0.1	0.3
S.D.	0.3	1.3	1.4	2.6	2.6	6.8	4.1	1.2	1.9	2.0	1.3	0.0	0.6	0.3	0.6

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

a): [(Number of corpora lutea - Number of implantation) / Number of corpora lutea]×100

b): (Number of implantation / Number of corpora lutea)×100

c): (Number of delivered pups / Number of implantation)×100

d): (Number of live borns / Number of delivered pups)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 12 - 4

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Delivery data

Generation : F0 | Dose : hexaoxanon 1000 mg/kg | Species : Rat

Dam No.	Gestation period (day)	Number of corpora lutea	Number of implan-tation	Preimplan-tation loss (%) a)	Implantation index (%) b)	Delivery index (%) c)	Live birth index (%) d)	Number of offspring	Number of live newborns			Number of dead newborns			
									M	F	Total	M	F	U	Total
4101	22	18(8/10)	17(8/9)	5.6	94.4	88.2	100.0	15	7	8	15	0	0	0	0
4102	21.5	16(7/9)	16(7/9)	0.0	100.0	93.8	100.0	15	10	5	15	0	0	0	0
4103	22	16(8/8)	16(8/8)	0.0	100.0	100.0	100.0	16	8	8	16	0	0	0	0
4105	22	16(6/10)	16(6/10)	0.0	100.0	100.0	100.0	16	8	8	16	0	0	0	0
4106	21.5	16(6/10)	16(6/10)	0.0	100.0	93.8	100.0	15	5	10	15	0	0	0	0
4107	22	17(6/11)	15(4/11)	11.8	88.2	100.0	93.3	15	7	7	14	1	0	0	1
4108	22	20(10/10)	19(9/10)	5.0	95.0	100.0	100.0	19	8	11	19	0	0	0	0
4109	23.5	18(9/9)	17(9/8)	5.6	94.4	76.5	15.4	13	0	2	2	8	3	0	11
4110	22	15(9/6)	15(9/6)	0.0	100.0	93.3	100.0	14	2	12	14	0	0	0	0
4111	22.5	16(8/8)	16(8/8)	0.0	100.0	81.3	100.0	13	6	7	13	0	0	0	0
4112	22	11(4/7)	10(4/6)	9.1	90.9	80.0	100.0	8	4	4	8	0	0	0	0
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	22.1	16.3	15.7	3.4	96.6	91.5	91.7	14.5	5.9	7.5	13.4	0.8	0.3	0.0	1.1
S.D.	0.5	2.2	2.2	4.3	4.3	8.8	25.4	2.7	2.9	3.0	4.6	2.4	0.9	0.0	3.3

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

Animal No.4104: Non-pregnancy

a): [(Number of corpora lutea - Number of implantation) / Number of corpora lutea]×100

b): (Number of implantation / Number of corpora lutea)×100

c): (Number of delivered pups / Number of implantation)×100

d): (Number of live borns / Number of delivered pups)×100

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 13 - 1

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

External examination of offspring

Unit : Number of anomalous offspring (incidence %)

Days after birth : 0

Generation : F0

Dose : hexaoxanon 0 mg/kg

Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
1101	15	No anomaly	0 (0.0)
1102	15	No anomaly	0 (0.0)
1103	15	No anomaly	0 (0.0)
1104	14	No anomaly	0 (0.0)
1105	15	No anomaly	0 (0.0)
1106	16	No anomaly	0 (0.0)
1107	15	No anomaly	0 (0.0)
1108	15	No anomaly	0 (0.0)
1110	17	No anomaly	0 (0.0)
1111	14	No anomaly	0 (0.0)
1112	16	No anomaly	0 (0.0)
Total	167		0
n	11		11
Mean			(0.0)
S.D.			(0.0)

Mean : Average of incidence (%)

a) : (Number of offspring with any anomaly / Number of offspring) x 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 1109 : Non-pregnancy

Appendix 13 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : hexaoxanon 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
2102	16	No anomaly	0 (0.0)
2103	17	No anomaly	0 (0.0)
2104	16	No anomaly	0 (0.0)
2105	15	No anomaly	0 (0.0)
2106	17	No anomaly	0 (0.0)
2107	15	No anomaly	0 (0.0)
2108	15	No anomaly	0 (0.0)
2109	14	No anomaly	0 (0.0)
2110	18	No anomaly	0 (0.0)
2111	14	No anomaly	0 (0.0)
2112	17	No anomaly	0 (0.0)
Total	174		0
n	11		11
Mean			(0.0)
S.D.			(0.0)

Mean : Average of incidence (%)

a) : (Number of offspring with any anomaly / Number of offspring) x 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 2101 : Not copulated

Appendix 13 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : hexaoxanon 300 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
3101	16	No anomaly	0 (0.0)
3102	15	No anomaly	0 (0.0)
3103	15	No anomaly	0 (0.0)
3104	15	No anomaly	0 (0.0)
3105	16	No anomaly	0 (0.0)
3106	15	No anomaly	0 (0.0)
3107 b)	14	No anomaly	0 (0.0)
3108	13	No anomaly	0 (0.0)
3109	12	No anomaly	0 (0.0)
3110	15	No anomaly	0 (0.0)
3111	15	No anomaly	0 (0.0)
3112	16	No anomaly	0 (0.0)
Total	177		0
n	12		12
Mean			(0.0)
S.D.			(0.0)

Mean : Average of incidence (%)

a) : (Number of offspring with any anomaly / Number of offspring) x 100

b) : One dead newborn that was not able to do external examination was excluded.

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 13 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
4101	15	No anomaly	0 (0.0)
4102	15	No anomaly	0 (0.0)
4103	16	No anomaly	0 (0.0)
4105	16	No anomaly	0 (0.0)
4106	15	No anomaly	0 (0.0)
4107	15	No anomaly	0 (0.0)
4108	19	No anomaly	0 (0.0)
4109	13	No anomaly	0 (0.0)
4110	14	No anomaly	0 (0.0)
4111	13	No anomaly	0 (0.0)
4112	8	No anomaly	0 (0.0)
Total	159		0
n	11		11
Mean			(0.0)
S.D.			(0.0)

Mean : Average of incidence (%)

a) : (Number of offspring with any anomaly / Number of offspring) x 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 4104 : Non-pregnancy

Appendix 13 - 5 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : hexaoxanon 0 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
1101	15	No anomaly
1102	15	No anomaly
1103	13	No anomaly
1104	12	No anomaly
1105	15	No anomaly
1106	16	No anomaly
1107	15	No anomaly
1108	15	No anomaly
1110	17	No anomaly
1111	14	No anomaly
1112	15	No anomaly
Total	162	
n	11	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 1109 : Non-pregnancy

Appendix 13 - 6 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : hexaoxanon 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
2102	16	No anomaly
2103	17	No anomaly
2104	11	No anomaly
2105	13	No anomaly
2106	17	No anomaly
2107	15	No anomaly
2108	14	No anomaly
2109	13	No anomaly
2110	17	No anomaly
2111	14	No anomaly
2112	15	No anomaly
Total	162	
n	11	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 2101 : Not copulated

Appendix 13 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : hexaoxanon 300 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
3101	16	No anomaly
3102	15	No anomaly
3103	15	No anomaly
3104	15	No anomaly
3105	16	No anomaly
3106	13	No anomaly
3107	14	No anomaly
3108	13	No anomaly
3109	12	No anomaly
3110	15	No anomaly
3111	14	No anomaly
3112	16	No anomaly
Total	174	
n	12	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 13 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
4101	15	No anomaly
4102	15	No anomaly
4103	16	No anomaly
4105	15	No anomaly
4106	15	No anomaly
4107	13	No anomaly
4108	19	No anomaly
4110	14	No anomaly
4111	13	No anomaly
4112	8	No anomaly
Total	143	
n	10	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 4104 : Non-pregnancy

Animal No. 4109 : Necropsied on lactation day 1 because all offspring died

Appendix 14 - 1

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Viability index and sex ratio of offspring on day 4 after birth

Study No. : R-1168

Generation : F0 Dose : hexaoxanon 0 mg/kg Species : Rat

Dam No.	Number of live offspring Day 0	Number of live offspring Day 4	Viability index (%)a)	Day 4 Number of live offspring Male	Day 4 Number of live offspring Female	Sex ratio (%)b)
1101	15	15	100.0	8	7	
1102	15	15	100.0	7	8	
1103	14	13	92.9	7	6	
1104	14	12	85.7	6	6	
1105	15	15	100.0	3	12	
1106	16	16	100.0	7	9	
1107	15	15	100.0	6	9	
1108	15	15	100.0	9	6	
1110	17	17	100.0	7	10	
1111	14	14	100.0	5	9	
1112	15	15	100.0	6	9	
n	11	11	11			71/162
Mean	15.0	14.7	98.1			43.8
S.D.	0.9	1.3	4.6			

a) : (Number of live offspring on day 4 after birth / Number of live newborns) × 100

b) : (Number of live males on day 4 after birth / Number of live offspring on day 4 after birth) × 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 1109 : Non-pregnancy

Appendix 14 - 2

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Viability index and sex ratio of offspring on day 4 after birth

Study No. : R-1168

Generation : F0 | Dose : hexaoxanon 100 mg/kg | Species : Rat

Dam No.	Number of live offspring Day 0	Number of live offspring Day 4	Viability index (%)a)	Day 4 Number of live offspring Male	Day 4 Number of live offspring Female	Sex ratio (%)b)
2102	16	16	100.0	4	12	
2103	17	17	100.0	9	8	
2104	14	11	78.6	3	8	
2105	14	13	92.9	8	5	
2106	17	17	100.0	10	7	
2107	15	15	100.0	8	7	
2108	14	14	100.0	9	5	
2109	14	13	92.9	6	7	
2110	18	17	94.4	5	12	
2111	14	14	100.0	7	7	
2112	15	15	100.0	10	5	
n	11	11	11			79/162
Mean	15.3	14.7	96.3			48.8
S.D.	1.5	2.0	6.6			

a) : (Number of live offspring on day 4 after birth / Number of live newborns) × 100

b) : (Number of live males on day 4 after birth / Number of live offspring on day 4 after birth) × 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 2101 : Not copulated

Appendix 14 - 3

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0 | Dose : hexaoxanon 300 mg/kg | Species : Rat

Dam No.	Number of live offspring Day 0	Number of live offspring Day 4	Viability index (%)a)	Day 4 Number of live offspring Male	Day 4 Number of live offspring Female	Sex ratio (%)b)
3101	16	16	100.0	6	10	
3102	15	15	100.0	4	11	
3103	15	15	100.0	5	10	
3104	15	15	100.0	9	6	
3105	16	16	100.0	8	8	
3106	13	13	100.0	3	10	
3107	14	14	100.0	9	5	
3108	13	13	100.0	7	6	
3109	12	12	100.0	6	6	
3110	15	15	100.0	6	9	
3111	15	14	93.3	8	6	
3112	16	16	100.0	8	8	
n	12	12	12			79/174
Mean	14.6	14.5	99.4			45.4
S.D.	1.3	1.3	1.9			

a) : (Number of live offspring on day 4 after birth / Number of live newborns) × 100

b) : (Number of live males on day 4 after birth / Number of live offspring on day 4 after birth) × 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 14 - 4

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Viability index and sex ratio of offspring on day 4 after birth

Study No. : R-1168

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Dam No.	Number of live offspring Day 0	Number of live offspring Day 4	Viability index (%)a)	Day 4 Number of live offspring Male	Day 4 Number of live offspring Female	Sex ratio (%)b)
4101	15	15	100.0	7	8	
4102	15	15	100.0	10	5	
4103	16	16	100.0	8	8	
4105	16	15	93.8	8	7	
4106	15	15	100.0	5	10	
4107	14	13	92.9	6	7	
4108	19	19	100.0	8	11	
4109	2	0	0.0			
4110	14	14	100.0	2	12	
4111	13	13	100.0	6	7	
4112	8	8	100.0	4	4	
n	11	11	11			64/143
Mean	13.4	13.0	89.7			44.8
S.D.	4.6	5.1	29.9			

a) : (Number of live offspring on day 4 after birth / Number of live newborns) × 100

b) : (Number of live males on day 4 after birth / Number of live offspring on day 4 after birth) × 100

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 4104 : Non-pregnancy

Animal No. 4109 : Necropsied on lactation day 1 because all offspring died

Appendix 15 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight of offspring

Generation : F0 Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

		/Days after birth			
		0		4/Pre-culled	
Dam No.	Sex	n	B.W.	n	B.W.
1101	Male	8	6.6	8	10.2
	Female	7	6.1	7	9.5
1102	Male	7	6.8	7	9.9
	Female	8	6.5	8	9.2
1103	Male	7	7.0	7	10.7
	Female	7	6.2	6	10.2
1104	Male	7	7.5	6	12.2
	Female	7	6.6	6	10.4
1105	Male	3	7.0	3	10.6
	Female	12	6.7	12	9.9
1106	Male	7	6.6	7	10.6
	Female	9	6.1	9	10.0
1107	Male	6	6.1	6	9.5
	Female	9	6.1	9	9.6
1108	Male	9	6.9	9	11.0
	Female	6	6.7	6	10.5
1110	Male	7	5.6	7	8.4
	Female	10	5.3	10	8.0
1111	Male	5	7.0	5	10.4
	Female	9	6.4	9	9.5
1112	Male	6	6.8	6	9.8
	Female	9	6.7	9	9.5
n	Male	72		71	
	Female	93		91	
Mean	Male		6.7		10.3
	Female		6.3		9.7
S.D.	Male		0.5		1.0
	Female		0.4		0.7

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight of offspring

Generation : F0 Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

		/Days after birth			
		0		4/Pre-culled	
Dam No.	Sex	n	B.W.	n	B.W.
2102	Male	4	6.1	4	8.6
	Female	12	6.1	12	8.3
2103	Male	9	6.5	9	9.1
	Female	8	6.5	8	8.9
2104	Male	5	6.4	3	12.2
	Female	9	6.1	8	10.9
2105	Male	8	6.8	8	11.3
	Female	6	6.2	5	10.1
2106	Male	10	6.3	10	9.4
	Female	7	5.9	7	9.2
2107	Male	8	6.1	8	9.1
	Female	7	5.8	7	8.7
2108	Male	9	6.2	9	10.3
	Female	5	6.0	5	9.6
2109	Male	7	7.0	6	11.8
	Female	7	6.5	7	10.4
2110	Male	6	7.0	5	10.6
	Female	12	6.4	12	9.6
2111	Male	7	6.5	7	10.4
	Female	7	6.1	7	9.8
2112	Male	10	6.5	10	9.9
	Female	5	5.7	5	9.0
n	Male	83		79	
	Female	85		83	
Mean	Male		6.5		10.2
	Female		6.1		9.5
S.D.	Male		0.3		1.2
	Female		0.3		0.8

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight of offspring

Generation : F0 Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

		/Days after birth			
		0		4/Pre-culled	
Dam No.	Sex	n	B.W.	n	B.W.
3101	Male	6	6.4	6	9.9
	Female	10	5.8	10	9.2
3102	Male	4	6.7	4	10.5
	Female	11	6.2	11	9.5
3103	Male	5	7.0	5	10.5
	Female	10	6.6	10	9.9
3104	Male	9	6.3	9	10.3
	Female	6	5.7	6	9.3
3105	Male	8	5.9	8	9.7
	Female	8	5.6	8	9.8
3106	Male	3	6.5	3	10.2
	Female	10	6.3	10	10.0
3107	Male	9	6.2	9	10.1
	Female	5	5.9	5	9.5
3108	Male	7	6.8	7	10.8
	Female	6	6.4	6	10.2
3109	Male	6	7.3	6	11.4
	Female	6	6.8	6	11.3
3110	Male	6	6.8	6	10.8
	Female	9	6.4	9	10.4
3111	Male	8	6.8	8	10.4
	Female	7	6.1	6	9.6
3112	Male	8	5.5	8	8.9
	Female	8	5.8	8	9.2
n	Male	79		79	
	Female	96		95	
Mean	Male		6.5		10.3
	Female		6.1		9.8
S.D.	Male		0.5		0.6
	Female		0.4		0.6

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight of offspring

Generation : F0 Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

		/Days after birth			
		0		4/Pre-culled	
Dam No.	Sex	n	B.W.	n	B.W.
4101	Male	7	6.7	7	9.1
	Female	8	6.3	8	9.1
4102	Male	10	6.1	10	8.8
	Female	5	5.8	5	8.3
4103	Male	8	6.9	8	10.4
	Female	8	6.3	8	9.4
4105	Male	8	6.5	8	10.0
	Female	8	6.2	7	9.9
4106	Male	5	6.2	5	9.2
	Female	10	6.0	10	9.3
4107	Male	7	6.3	6	11.5
	Female	7	6.4	7	11.6
4108	Male	8	6.3	8	9.5
	Female	11	5.6	11	8.2
4109	Male	0			
	Female	2	6.2	a)	
4110	Male	2	6.2	2	9.7
	Female	12	5.9	12	9.6
4111	Male	6	6.7	6	10.1
	Female	7	6.6	7	10.0
4112	Male	4	8.2	4	13.7
	Female	4	7.1	4	11.7
n	Male	65		64	
	Female	82		79	
Mean	Male		6.6		10.2
	Female		6.2		9.7
S.D.	Male		0.6		1.5
	Female		0.4		1.2

Animal No.4104: Non-pregnancy

a): All pups died by postnatal day 1.

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 5

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Body weight gain of offspring

Base : Day 4 after birth

Generation : F0 Dose : hexaoxanon 0 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
1101	Male	8	3.6
	Female	7	3.4
1102	Male	7	3.1
	Female	8	2.7
1103	Male	7	3.7
	Female	6	4.0
1104	Male	6	4.7
	Female	6	3.8
1105	Male	3	3.6
	Female	12	3.2
1106	Male	7	4.0
	Female	9	3.9
1107	Male	6	3.4
	Female	9	3.5
1108	Male	9	4.1
	Female	6	3.8
1110	Male	7	2.8
	Female	10	2.7
1111	Male	5	3.4
	Female	9	3.1
1112	Male	6	3.0
	Female	9	2.8
n	Male	71	
	Female	91	
Mean	Male		3.6
	Female		3.4
S.D.	Male		0.5
	Female		0.5

Animal No.1109: Non-pregnancy

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 6

Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats

Study No. : R-1168

Body weight gain of offspring

Base : Day 4 after birth

Generation : F0 Dose : hexaoxanon 100 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
2102	Male	4	2.5
	Female	12	2.2
2103	Male	9	2.6
	Female	8	2.4
2104	Male	3	5.8
	Female	8	4.8
2105	Male	8	4.5
	Female	5	3.9
2106	Male	10	3.1
	Female	7	3.3
2107	Male	8	3.0
	Female	7	2.9
2108	Male	9	4.1
	Female	5	3.6
2109	Male	6	4.8
	Female	7	3.9
2110	Male	5	3.6
	Female	12	3.2
2111	Male	7	3.9
	Female	7	3.7
2112	Male	10	3.4
	Female	5	3.3
n	Male	79	
	Female	83	
Mean	Male		3.8
	Female		3.4
S.D.	Male		1.0
	Female		0.7

Animal No.2101: Not copulated

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 7 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight gain of offspring Base : Day 4 after birth

Generation : F0 Dose : hexaoxanon 300 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
3101	Male	6	3.5
	Female	10	3.4
3102	Male	4	3.8
	Female	11	3.3
3103	Male	5	3.5
	Female	10	3.3
3104	Male	9	4.0
	Female	6	3.6
3105	Male	8	3.8
	Female	8	4.2
3106	Male	3	3.7
	Female	10	3.7
3107	Male	9	3.9
	Female	5	3.6
3108	Male	7	4.0
	Female	6	3.8
3109	Male	6	4.1
	Female	6	4.5
3110	Male	6	4.0
	Female	9	4.0
3111	Male	8	3.6
	Female	6	3.5
3112	Male	8	3.4
	Female	8	3.4
n	Male	79	
	Female	95	
Mean	Male		3.8
	Female		3.7
S.D.	Male		0.2
	Female		0.4

hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 15 - 8 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

Body weight gain of offspring Base : Day 4 after birth

Generation : F0 Dose : hexaoxanon 1000 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
4101	Male	7	2.4
	Female	8	2.8
4102	Male	10	2.7
	Female	5	2.5
4103	Male	8	3.5
	Female	8	3.1
4105	Male	8	3.5
	Female	7	3.7
4106	Male	5	3.0
	Female	10	3.3
4107	Male	6	5.2
	Female	7	5.2
4108	Male	8	3.2
	Female	11	2.6
4110	Male	2	3.5
	Female	12	3.7
4111	Male	6	3.4
	Female	7	3.4
4112	Male	4	5.5
	Female	4	4.6
n	Male	64	
	Female	79	
Mean	Male		3.6
	Female		3.5
S.D.	Male		1.0
	Female		0.9

Animal No.4104: Non-pregnancy
Animal No.4109: All pups died by postnatal day 1.
hexaoxanon: 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 16 - 1 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : hexaoxanon 0 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
1101	0	
1102	0	
1103	1	No anomaly
1104	1	No anomaly
1105	0	
1106	0	
1107	0	
1108	0	
1110	0	
1111	0	
1112	0	
Total	2	
n	11	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 1109 : Non-pregnancy

Appendix 16 - 2 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : hexaoxanon 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
2102	0	
2103	0	
2104	0	
2105	0	
2106	0	
2107	0	
2108	0	
2109	0	
2110	1	No anomaly
2111	0	
2112	0	
Total	1	
n	11	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 2101 : Not copulated

Appendix 16 - 3 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : hexaoxanon 300 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
3101	0	
3102	0	
3103	0	
3104	0	
3105	0	
3106	0	
3107	0	
3108	0	
3109	0	
3110	0	
3111	1	No anomaly
3112	0	
Total	1	
n	12	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Appendix 16 - 4 Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test of 2,5,8,11,14,17-hexaoxanonadecan-19-ol by oral administration in rats Study No. : R-1168

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : hexaoxanon 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
4101	0	
4102	0	
4103	0	
4105	1	No anomaly
4106	0	
4107	0	
4108	0	
4109	0	
4110	0	
4111	0	
4112	0	
Total	1	
n	11	

hexaoxanon : 2,5,8,11,14,17-hexaoxanonadecan-19-ol

Animal No. 4104 : Non-pregnancy

信頼性保証書（1/3）

試験番号　：　R-1168

試験表題　：　2,5,8,11,14,17-hexaoxanonadecan-19-ol のラットを用いた経口投与による反復投与毒性・生殖発生毒性併合試験

本試験は以下に示す基準を遵守して実施されたことを保証致します。

- 「新規化学物質等に係る試験を実施する試験施設に関する基準」（平成 23 年 3 月 31 日：薬食発 0331 第 8 号、平成 23･03･29 製局第 6 号、環保企発第 110331010 号）

なお、調査は下記の通り実施致しました。

2016年 3 月28日

株式会社ボゾリサーチセンター

信頼性保証部門 [redacted]

試験における調査

項　目	担当者	調　査　日	試験責任者及び運営管理者への報告日
試験計画書	[redacted]	2015 年　8 月 31 日	2015 年　8 月 31 日
動物入荷		2015 年　9 月　2 日	2015 年　9 月　2 日
作業予定表・		2015 年　9 月　8 日	
コンピュータプロトコール		2015 年　9 月　9 日	2015 年　9 月　9 日
改善確認		2015 年　9 月 14 日	2015 年　9 月 15 日
試験計画書変更書（1）		2015 年　9 月　9 日	2015 年　9 月　9 日
調製・保存（被験物質）		2015 年　9 月 17 日	2015 年　9 月 18 日
投与液の濃度及び均一性確認		2015 年　9 月 17 日	2015 年　9 月 18 日
群分け		2015 年　9 月 22 日	2015 年　9 月 24 日

信頼性保証書（2/3）

項　目	担当者	調　査　日	試験責任者及び運営管理者への報告日
膣垢検査・体重・摂餌量測定・投与・一般状態の観察	[redacted]	2015年 9月23日	2015年 9月24日
詳細な一般状態の観察		2015年 9月28日	2015年 9月28日
交配		2015年 10月 8日	2015年 10月 8日
分娩・哺育観察・体重測定		2015年 10月29日	2015年 10月30日
尿検査（尿量・色調・定性・沈渣）		2015年 10月29日	2015年 10月30日
摂水量測定		2015年 10月30日	2015年 10月30日
尿検査（電解質・浸透圧）		2015年 10月30日	2015年 10月30日
機能検査・握力測定・自発運動量測定		2015年 11月 2日	2015年 11月 2日
採血・剖検		2015年 11月 3日	2015年 11月 4日
血液学検査（血液凝固検査）		2015年 11月 4日	2015年 11月 4日
病理組織学検査（切り出し）		2015年 11月13日	2015年 11月13日
試験計画書変更書（2）		2015年 11月19日	2015年 11月19日
被験物質の安定性		2015年 11月20日	2015年 11月21日
図・表・付表		2016年 1月28日 2016年 1月29日 2016年 2月 1日 2016年 2月 4日 2016年 2月 6日 2016年 2月 7日 2016年 2月 8日	2016年 2月 9日
改善確認		2016年 2月10日	2016年 2月10日
生データ（投与液の濃度及び均一性確認、被験物質の安定性）		2016年 2月 8日	2016年 2月 8日
測定レポート（投与液の濃度及び均一性確認、被験物質の安定性：案）		2016年 2月 8日	2016年 2月 8日

信頼性保証書（3/3）

項　目	担当者	調　査　日	試験責任者及び運営管理者への報告日
最終報告書草案	[redacted]	2016年　2月　9日	2016年　2月 10日
改善確認		2016年　2月 10日	2016年　2月 10日
測定レポート（投与液の濃度及び均一性確認、被験物質の安定性）		2016年　2月 10日	2016年　2月 10日
生データ（入荷～剖検・病理、飼育関係、被験物質関係）		2016年　2月　4日	
		2016年　2月　6日	
		2016年　2月　7日	
		2016年　2月　8日	
		2016年　3月 15日	
		2016年　3月 16日	
		2016年　3月 17日	
		2016年　3月 18日	
		2016年　3月 24日	
		2016年　3月 25日	2016年　3月 25日
最終報告書		2016年　3月 28日	2016年　3月 28日

プロセス調査

項　目	試験番号	担当者	調　査　日	試験責任者及び運営管理者への報告日
検疫・馴化	B-7910	[redacted]	2015年　8月 17日	2015年　8月 18日
	B-7910		2015年　8月 22日	2015年　8月 24日
血液学検査・血液化学検査	B-7850		2015年 10月　6日	2015年 10月　6日
病理組織学検査（包埋・薄切・染色）	B-7837		2015年 10月　6日	2015年 10月　6日
	B-7837		2015年 10月　7日	2015年 10月　7日
	B-7837		2015年 10月 13日	2015年 10月 13日