R-1191

原本

最　終　報　告　書

エチル＝ステアラート：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-1191

試験期間：2016 年 9 月 28 日-2017 年 3 月 30 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
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試験委託者
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1. GLP 陳述書

試験番号　　：　R-1191

試験表題　　：　エチル＝ステアラート：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]

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-1191

3.2　試験表題

エチル＝ステアラート：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

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・生活衛生局　医薬品審査管理課　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	:	エチル＝ステアラート
英語名称	:	Ethyl Stearate
CAS 番号	:	111-61-5
官報公示整理番号	:	化審法；(2)-798、安衛法；公表化学物質
入手日	:	2016 年 10 月 6 日

3.8　試験日程

試験開始日	:	2016 年　9 月 28 日
動物入荷日	:	2016 年　9 月 28 日
実験開始日（投与開始日）	:	2016 年 10 月 17 日

交配開始日　　：　2016 年 10 月 31 日
分娩開始日　　：　2016 年 11 月 22 日
母動物剖検開始日　：　2016 年 11 月 27 日
投与終了剖検日　　：　2016 年 11 月 28 日　（雄及び非交配群）
回復開始日　　：　2016 年 11 月 28 日
回復終了剖検日　　：　2016 年 12 月 12 日
動物試験終了日　　：　2016 年 12 月 12 日
実験終了日（病理組織学検査終了日）
　　：　2017 年　2 月　9 日
試験終了日　　：　2017 年　3 月 30 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　　：
[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 3107 の上皮小体が標本上両側欠如となったが、1 例のみであり、鏡検対象動物でないことから、試験の信頼性に影響はないと判断した。

その他、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、試験計画書原本（試験計画書変更書を含む）、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。期間終了後の保存は、厚生労働省　医薬・生活衛生局　医薬品審査管理課　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]

4. 要約

エチル＝ステアラートをコーン油で溶解し、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(41~48 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

雄、交配群雌及び非交配群雌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。

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、本試験条件下における本被験物質の反復投与毒性に対する雌雄の無影響量及び無毒性量は 1000 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・生活衛生局　医薬品審査管理課　化学物質安全対策室の委託により、エチル＝ステアラート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。

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）
- 「新規化学物質の判定及び監視化学物質への該当性の判定等に係る試験方法及び判定基準」
  （平成 23 年 4 月 22 日:厚生労働省医薬食品局審査管理課化学物質安全対策室、経済産業省製造産業局化学物質管理課化学物質安全室、環境省総合環境政策局環境保健部企画課化学物質審査室）

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）

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：G160329）を受けて実施した。

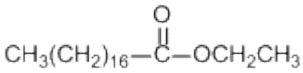
6.　試験材料及び方法

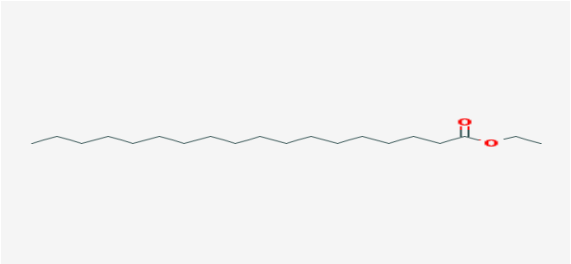
6.1　被験物質及び媒体

6.1.1　被験物質

エチル＝ステアラートは東京化成工業株式会社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-2839、Attached Data 1）。

名称	:	エチル＝ステアラート
英語名称	:	Ethyl Stearate
製造者	:	[redacted]
別名*	:	Stearic acid ethyl ester
CAS 番号	:	111-61-5
官報公示整理番号	:	化審法；(2)-798、安衛法；公表化学物質
分子式	:	$C_{20}H_{40}O_2$
構造式又は示性式	:	





分子量	:	312.54
ロット番号	:	3DX4G
純度（GC）	:	98.9%
性状*	:	結晶（20°C で固体）、白色~ごくうすい黄色
融点*	:	30°C（凝固点）
沸点/沸騰範囲*	:	199°C/1.3 kPa
臭い、pH、引火点、燃焼又は爆発範囲、比重及び溶解度*	:	情報なし
保存条件*	:	密栓して冷暗所（実測値：3.5~5.5°C）
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　御殿場研究所で残余被験物質の赤外吸収スペクトルを確認した結果、試験開始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）。

保存場所　：　御殿場研究所　被験物質保存室及び第 2 研究棟被験物質調製室

取扱い上の注意*　：　①粉塵やエアゾールが発生する場合には、局所排気を用いる。
②保護手袋、保護眼鏡、保護面及び保護衣を着用する。
③粉塵が飛散しないように注意する。
④取扱い後は手や顔などをよく洗う。

保存試料　：　被験物質約 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。

残余被験物質の処置：　動物試験及び分析終了後の残余被験物質は全て廃棄処理した。

*：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[注]

メーカー　：　和光純薬工業株式会社

規格　：　生化学用

ロット番号（有効期限）
：　LKN4702（2021 年 6 月 2 日）、LKJ3182（2021 年 10 月 10 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

注：媒体は、本試験に先立って実施した「エチル=ステアラートの赤外吸収スペクトル測定法による特性試験及び安定性試験並びに GC 法を用いた被験液（媒体：コーン油）中濃度測定法バリデーション及び安定性試験」（株式会社ボゾリサーチセンター、試験番号：A-2839）[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分注した。

6.2.2　被験液の調製

被験物質を 36~40°C に加温し融解した後、濃度ごとに一括調製に必要な被験物質を秤取し、媒体を加えて混合して所定量（20、60 及び 200 mg/mL 液）とした。

下表に各投与液の 100 mL を調製する場合の被験物質秤取量を示した。

試験群 (投与量：mg/kg/day)	濃　度 (mg/mL)	被験物質秤取量 (g)	調製量 (mL)	投与容量 (mL/kg/day)
対照群（コーン油）　(0)	0	0	100	5.0
低用量群　(100)	20	2	100	5.0
中用量群　(300)	60	6	100	5.0
高用量群　(1000)	200	20	100	5.0

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　投与液の保存方法及び使用期限

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 1 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-2839、Attached Data 3）[1]。

6.2.5　被験液の濃度確認

初回投与及び投与 6 週の投与に使用した各濃度の被験液について、株式会社ボゾリサーチセンター御殿場研究所で GC により濃度確認を行った。なお、初回投与に使用した被験液については、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 100.5~105.5%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%）であったことから、被験液の調製に問題はないと判断した。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-2839）[1]で実施された。分析法の概略を以下に示した。

1)　測定対象物質

エチル=ステアラート

2)　標準物質

名称	:	エチル=ステアラート
ロット番号	:	3DX4G
保存条件	:	冷暗所（冷蔵庫内、実測値：3~8°C）、密栓
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

3)　濃度測定用試料の調製

各測定試料を任意の場所から n=1 で採取して、以下に示すように、測定実測試料を用時調製した。調製にはホールピペット及びエクセルトリペット、メスフラスコを用いた。なお、採取時に析出物は見られなかった。

被験液濃度（mg/mL）	1 次希釈		2 次希釈		3 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）	2 次希釈液採取量（mL）	コーン油添加量（mL）	定容量（mL）	
20	1	10	1	10	1	0.2	20	2000
60	1	30	1	10	1	0.2	20	6000
200	1	50	1	20	1	0.2	20	20000

溶媒：アセトン

4)　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	

5)　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　：　1.5 mL/min

注入口　：　スプリット注入口

スプリット比　：　5：1

注入口温度　：　280°C

検出器　：　Flame ionization detector（FID）

検出器温度　：　300°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：
40 mL/min

オーブン温度　：　200°C（Hold 0 分）→ 260°C（10°C/min、Hold 0 分）→ 290°C（20°C/min、Hold 5 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 19 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 19 日の 5 回、各測定日間の体重増加量算出）、詳細な一般状態の観察（1 回、群分け 5 日前）を実施した。更に、雄は群分け 2 日前に陰嚢内の精巣の触診及び陰茎亀頭の観察を行い、雌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、頚椎骨骨折による死亡が雄 1 例（耳標番号：573）、性周期異常が 1 例（耳標番号：656）みられた。この 1 例を除き、健康と思われる雄 61 匹中 48 匹及び雌 82 匹中 68 匹を選択し、10 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 408~453 g（平均体重：431 g）、雌は 209~260 g（平均体重：233 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・馴化期間中の体重推移（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、交配終了日に試験から除外した。その他の雌雄残余動物は群分け後（投与 2 日）に試験から除外した。なお、試験から除外された動物は、動物管部門に移管した。

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：22~24°C）、相対湿度 50±20%（実測値：44~65%）、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：902 号室）に収容した。動物は床敷（ALPHA-dri、Shepherd Specialty Papers Inc.、ロット番号：04116、05116、07116）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 2~3 匹ずつ、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。交配期間中の雄はプラスチッ

クケージで個別に収容し、交配は雄のケージに雌を移動させて行った。交尾成立雌（妊娠 17 日以降）は床敷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、エンリッチメントとして、動物試験期間中毎週 1 回、7979C.CS certified/irradiated Diamond Twists (Envigo RMS, Inc.、ロット番号: 7979C-011216P、7979C-051716P、7979C-082316P)を与えた。更に、群分け後の雌雄のケージには 4 週間に 1 回程度の交換頻度で Chew Toy（ステンレス棒）を設置した。

動物には CRF-1 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：160607、160705、160804）をステンレス製給餌器により、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。

混入物質の分析は、使用した飼料のロットをユーロフィン・フードアンドプロダクト・テスティング株式会社で、使用した床敷のロットを N·P Analytical Laboratories で行ったデータを入手した。飲料水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 Diamond Twists のロットは、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

動物は入荷時に耳標を装着し、個体識別した。群分け後は試験群、性及び群内の個体番号が区別できるよう、4 桁の数字を割り当てた（表 1-1、1-2 の群構成表参照）。各飼育ケージには投与量（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、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。

また、ケージラベルの裏には試験番号、性及び耳標番号のみを表示し、詳細な一般状態の観察、機能検査あるいは握力測定時には、ケージラベルを裏返して観察者への投与量の情報を制限した。

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（投与日数）は、交配群の雌雄で交配前 14 日、更に、雄で交配開始後 28 日（計 42 日間）、雌で交配期間及び妊娠期間を通して授乳 4 日まで（計 41~48 日間）、非交配群の雌で 42 日とした。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。

回復動物の回復期間（回復日数）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。

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、フレキシブル胃ゾンデを用いて投与液を 08:22~12:15 の間に投与した。ただし、投与時に分娩中であった動物は分娩終了を待って、13:46~14:51 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/day の 3 用量とし、これに対照群を加え、計 4 群構成とした。1 群当たりの動物数は、交配を行う交配群の各群で雌雄各 12 匹、交配しない非交配群の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 5 匹、非交配群の雌の 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「エチル＝ステアラート：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-R058、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。予備試験の一般状態、体重、摂餌量、血液学検査、血液化学検査、器官重量及び剖検所見に被験物質投与の影響は認められなかった。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

試験日の起算は下記の通りとした。

投与開始日	：投与 1 日
投与 1 日から 7 日	：投与 1 週
回復開始日（投与 42 日の翌日）	：回復 1 日
回復 1 日から 7 日	：回復 1 週
交尾成立日	：妊娠 0 日
分娩終了日（出産日）	：授乳 0 日
出生日	：生後 0 日

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、ただし、詳細な一般状態の観察実施日は投与前と投与直後の 2 回/日）、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。

雄及び非交配群雌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（未交尾動物は交配 6 及び 13 日：評価から除外）、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、分娩動物は授乳 4 日）にそれぞれ観察した。

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 41~48 日）に、その他は投与期間終了週（投与 6 週、投与 37 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、回復 9 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、1102、1103、1109、1112
低用量群	2101、2104、2108、2110、2112
中用量群	3102、3103、3105、3106、3107
高用量群	4102、4103、4104、4111、4112

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

雄及び非交配群雌は投与 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（07:40~11:28 の間（投与期間中は投与前））。

なお、午後に分娩が終了した母動物の授乳 0 日の体重は 13:42~16:51 の間に、剖検日は前日から約 16 時間絶食させた後、07:37~09:17 の間に体重を測定した。また、交配期間中の雌（投与 22 日）及び交尾不成立雌動物については、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

雄及び非交配群雌は投与 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 07:50~11:21 の間（投与期間中は投与前）に行った。

6.11.5 腟垢検査

交配群雌は投与開始日から交尾成立まで毎日（午前）腟垢を採取した。交配前投与期間中の標本は、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）、観察雌数に対する性周期異常を示し

た雌数の割合を調べた。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。

非交配群雌は、交配群の交配成績から交尾までに要した日数あるいは交尾率に被験物質投与の影響が認められなかったことから、腟垢検査は実施しなかった。

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、腟内の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 1110、2111）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。これらの動物の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 22 日の午後まで 1 日 2 回（午前・午後）、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。

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。死亡児は外表異常の有無を肉眼的に観察した後、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

投与期間終了週（投与 6 週、投与 39~40 日）及び回復期間終了週（回復 2 週、回復 10~11 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、非交配群雌の群内番号 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。なお、以下の再測定を行った。

尿検査における再測定

動物番号	項目	理由	採用値
4009	ナトリウム	測定下限以下	原尿による再測定値

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 a)
たん白質	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 a)
ケトン体	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 a)
グルコース	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 a)
潜血	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 a)
ビリルビン	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 a)
ウロビリノーゲン	ﾏﾙﾃｨｽﾃｨｯｸｽ試験紙 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）

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.）
b)：自動浸透圧測定装置 オズモステーション 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

全個体について、剖検前日（最終投与日あるいは回復 14 日）から一夜（16~21 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（約 1 mL）を採取した。得られた血液

は、次の表 3.-1)に記載した項目及び方法により検査した。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（0.9 mL）を遠心分離（3,000 rpm、約 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。交尾不成立雌動物についても絶食後に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。なお、採血した全個体について、May-Grünwald-Giemsa 染色法による血液塗抹標本を作製した。なお、以下の再測定を行った。

血液学検査における再測定

動物番号	項目	再測定理由	採用値
1008	ADVIA 全項目	機器不良	再測定値
3102	APTT	エラー表示	再測定値

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、1102、1103、1109、1112
低用量群	2101、2104、2108、2110、2112
中用量群	3102、3103、3105、3106、3107
高用量群	4102、4103、4104、4111、4112

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(E4)/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(E4)/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(E2)/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(E2)/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)：血液凝固自動測定装置　ACL Elite Pro（Instrumentation Laboratory, MA, USA）		
注）：好中球(NEUT)、好酸球(EOS)、好塩基球(BASO)、リンパ球(LYMP)、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（約 6 mL）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、約 1,600×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（約 2 mL）を遠心分離（3,000 rpm、約 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[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、血中ホルモン（T_3、T_4及び TSH）測定は行わなかった。

6.11.12　病理学検査

1)　剖検及び器官重量測定

雄、交配群雌及び非交配群雌の投与終了時剖検群の動物は最終投与翌日に、雄及び非交配群雌の回復動物は回復期間終了日に、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。なお、母動物には剖検時に黄体数及び着床痕数を数えた。交尾不成立雌動物は、採血して放血致死させた後に剖検を行った。

全個体について、以下に示す器官の重量を測定した。それらの器官重量（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。ただし、眼球、視神経は 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、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は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、先ず投与期間終了時剖検群及び回復終了時剖検群の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の全検査対象器官/組織について行った。

大脳、小脳（橋を含む）、坐骨神経*[1]、脊髄（胸部）、眼球*[1]、視神経*[1]、ハーダー腺*[4]、下垂体、甲状腺*[2]、上皮小体*[2]、副腎*[3]、胸腺、脾臓、顎下リンパ節、腸間膜リンパ節、心臓、胸大動脈*[4]、気管、肺（気管支を含む）、舌*[4]、喉頭*[4]、食道*[4]、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*[1]、舌下腺*[1]、肝臓、膵臓、腎臓*[1]、膀胱、精巣*[3]、卵巣*[3]、精巣上体*[3]、子宮（角部及び頸部）*[3]、前立腺、腟、精嚢（凝固腺を含む）*[3]、皮膚

（鼠径部）*[1]、乳腺（鼠径部）*[1]、胸骨（骨髄を含む）*[4]、大腿骨（骨髄を含む）*[1]、大腿部骨格筋*[1]、肉眼的異常部位

*1： 両側を摘出し、片側を標本作製・鏡検した。
*2： 甲状腺及び上皮小体は両側の標本作製を試み、両器官とも片側（左側を優先し、左側で標本にならない場合は右側）について鏡検した。なお、上皮小体は各群 80%以上の動物で鏡検が可能であったため、標本の再作製は行わなかった。
*3： 両側を摘出し、両側を標本作製・鏡検した。
*4： 保存のみ（ハーダー腺は両側保存）。

6.12 データ採取に使用するコンピュータシステム

- MiTOX-BOZO システム（Version 9.3.1.1、三井造船システム技研株式会社）
- Pathos5 システム（Version 5, Pathology Operating Systems Ltd.）

6.13 統計解析

6.13.1 パラメータの算出

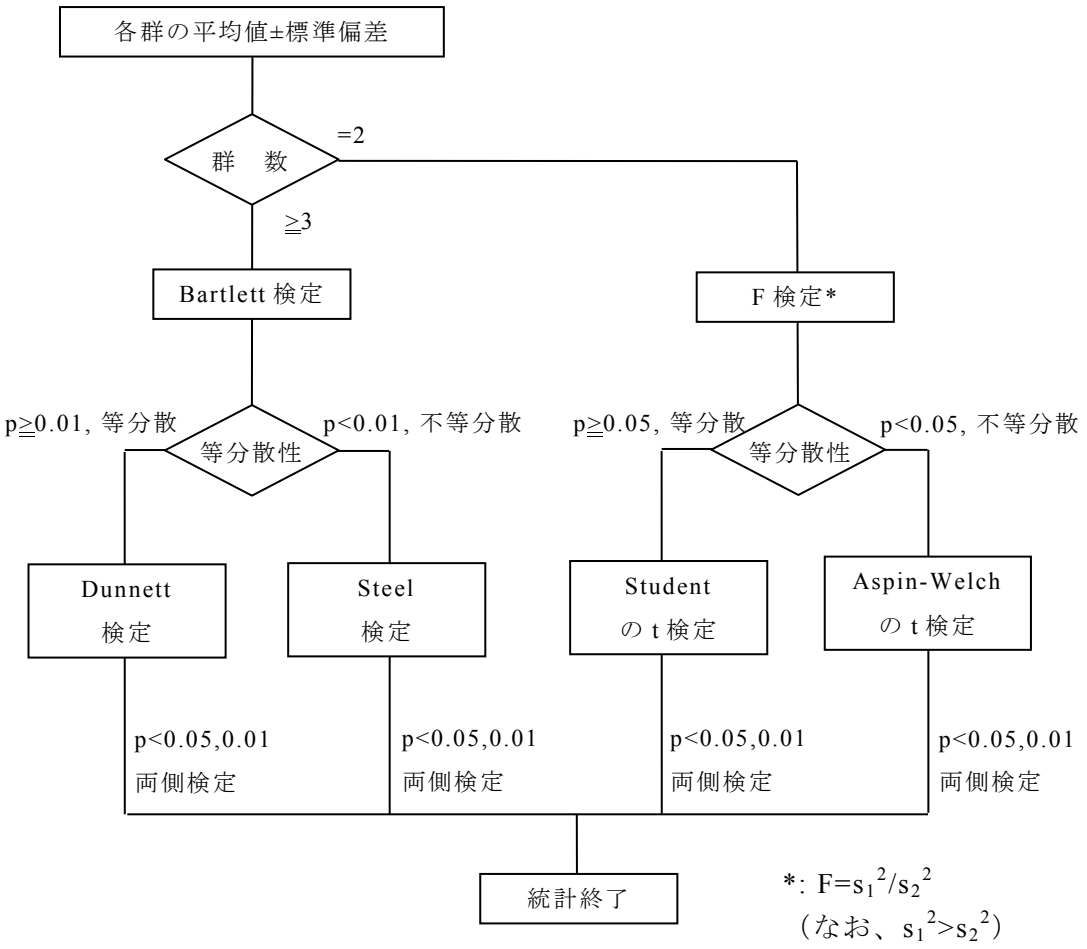
以下の式により性周期異常率、交尾率、授精率、受胎率及び出産率、生後 0 及び 4 日の性比を群ごとに、妊娠期間、着床前死亡率、着床率、分娩率、外表異常率、出生率、生後 4 日生存率を母動物（腹）ごとに算出した。なお、出生児の体重については母動物ごと雌雄別に平均値を求めた。

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

6.13.2 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）、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（Table1-1~1-11、Appendix 1-1~1-34）

投与期間及び回復期間ともに、いずれの動物にも死亡あるいは被験物質投与による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）

投与期間及び回復期間ともに、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）

投与期間及び回復期間ともに、いずれの動物にも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も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も対照群と 1000 mg/kg 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 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

雄では、1000 mg/kg 群で後肢の握力に有意な低値が認められた。

交配群雌及び非交配群雌では、対照群と各被験物質投与群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 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

雄、交配群雌及び非交配群雌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) 回復期間終了週測定

雄及び非交配群雌では、対照群と 1000 mg/kg 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、交配群雌及び非交配群雌では、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が、雄の 1000 mg/kg 群の剖検時体重は有意な低値を示した。

2) 回復期間

雄及び非交配群雌では、対照群と 1000 mg/kg 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、交配群雌及び非交配群雌では、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

雄及び非交配群雌では、対照群と 1000 mg/kg 群との間に有意差は認められなかった。

7.5 尿検査（Table 5-1~5-24、Appendix 5-1~5-30）

1) 投与期間終了週検査

定性項目では、いずれの動物にも異常はみられなかった。

定量項目では、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

定性項目では、いずれの動物にも異常はみられなかった。

定量項目では、非交配群雌の 1000 mg/kg 群で塩素の 1 日排泄量に有意な低値が認められたが、投与終了時の対照群とほぼ同等値であり、偶発的変化と判断した。雄では、対照群と 1000 mg/kg 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 6-1~6-16）

1)　投与期間終了時検査

雄及び交配群雌のいずれの検査項目においても、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。

非交配群雌では、1000 mg/kg 群で白血球数、大型非染色球の数と比率及びリンパ球数に有意な高値が認められた。

2)　回復期間終了時検査

雄では 1000 mg/kg 群で好酸球比率に有意な高値、非交配群雌では 1000 mg/kg 群で血小板数、好酸球の数と比率及びフィブリノゲン量の有意な高値が認められたが、いずれも投与期間終了時に認められず、投与期間終了時の対照群と大差ないことから偶発的変化と判断した。

7.7　血液化学検査（Table 7-1~7-7、Appendix 7-1~7-16）

1)　投与期間終了時検査

雄では、1000 mg/kg 群でアルブミンに有意な低値が認められたが、ごく軽微な変動であり、回復期間終了時の対照群と同等値であることから、偶発的変化と判断した。

交配群雌では、1000 mg/kg 群で γ-GTP の有意な高値が認められたが、ごく軽微であり偶発的変化と判断した。また、300 mg/kg 群でグルコースの有意な高値及び無機リンの有意な低値が認められたが、軽微な変動であり、用量との関連がなく偶発的変化と判断した。

非交配群雌では、1000 mg/kg 群でカルシウム、総たん白質及びアルブミン量に有意な低値が認められた。

2)　回復期間終了時検査

雄では、1000 mg/kg 群でカルシウムの有意な低値が認められたが、ごく軽微な変動であり、投与期間終了時にみられないことから偶発的変化と判断した。

非交配群雌では、対照群と 1000 mg/kg 群との間に有意差は認められなかった。

7.8　器官重量（Table 8-1~8-7、Appendix 8-1~8-32）

1)　投与期間終了時検査

雄では、300 及び 1000 mg/kg 群で肝臓の絶対及び相対重量に有意な低値が認められた。その他、1000 mg/kg 群で甲状腺及び腎臓の相対重量に有意な高値が認められたが、いずれも相対重量のみの変化であり、剖検時体重の低値に伴う二次的な変化と考えられ、組織学的に異常がないことから毒性学的意義はないと判断した。

交配群雌では 100 mg/kg 群で脾臓の相対重量、300 mg/kg 群で子宮の相対重量にそれぞれ有意な低値が認められたが、用量との関連はないことから、偶発的変化と判断した。

非交配群雌では、1000 mg/kg 群で卵巣の絶対及び相対重量に有意な高値が認められた。その他、同群で心臓の絶対重量に有意な高値が認められたが、軽微であり、絶対

重量のみの変化であることから、偶発的変化と判断した。

2) 回復期間終了時検査

雄では、1000 mg/kg 群で肝臓の絶対及び相対重量に有意な低値が認められた。

その他、1000 mg/kg 群で下垂体、副腎及び前立腺の絶対重量に有意な低値が認められたが、絶対重量のみの変動であり、組織学的に異常がなく、投与終了時検査に認められないことから偶発的変化と判断した。

非交配群雌では、いずれの器官においても 1000 mg/kg 群と対照群との間に有意差は認められなかった。

7.9 剖検所見（Table 9-1~9-6、Appendix 9-1~9-116）

投与期間終了時及び回復期間終了時検査において、諸臓器に肉眼的変化がみられたが、その病理学的性状又は発現状況から被験物質投与に関連しない偶発的変化と考えられた。また、交尾不成立動物（雌未分娩）の対照群と 100 mg/kg 群の雌雄各 1 例に異常はなかった。

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

投与期間終了時及び回復期間終了時検査において、諸臓器に組織学的変化がみられたが、その病理学的性状又は発現状況から被験物質投与に関連しない偶発的変化と考えられた。なお、交尾不成立動物（雌未分娩）では、雌（動物番号 1110、2111）に異常はなかったが、雄の対照群（動物番号 1010）で精細管の軽微な萎縮、100 mg/kg 群（動物番号 2011）で前立腺の軽微なリンパ球細胞浸潤がみられた。これら変化は発現状況から偶発的変化と判断した。

7.11 性周期（Table 11、Appendix 10-1~10-8）

性周期異常が対照群、100 及び 300 mg/kg 群で各 2（動物番号 1105、1112）、1（動物番号 2102）及び 1 例（動物番号 3105）にみられたが、発現状況に用量との関連はなく、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。

なお、性周期異常（4 又は 5 日サイクルの発情期像を示さなかった）とした対照群の 2 例（動物番号 1105、1112）は、性周期から推定される交尾日（動物番号 1105 は交配 3 日、動物番号 1112 は交配 2 日）に交尾した。また、100 及び 300 mg/kg 群の各 1 例（動物番号 2102、3105）は連続休止期像を示し、動物番号 2102 は交配 8 日、動物番号 3105 は交配 1 日に交尾した。連続休止期像は腟垢採取時における手技上の問題で被験物質投与との関連はない。

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対照群及び 100 mg/kg の各 1 組（雄 1010 と雌 1110、雄 2011 と雌 2111 の組み合わせ）を除き、ほとんどが交配 4 日までに全例に交尾が成立し、

雌は妊娠した。したがって、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。

なお、交尾不成立雌における交配中の性周期は連続休止期像であり、腟垢採取時における手技上の問題で被験物質投与との関連はない。

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（Table1-5 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、死産児数及び生後 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、全例が妊娠 21 又は 22 日に分娩し、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

エチル＝ステアラートの 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（41~48 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

雄の 1000 mg/kg 群で投与期間終了週に後肢握力の低値（対照群の 1035 g に対し 869 g）が認められた。しかし、軽度な変化であり、伸筋反応、屈筋反応及び着地開脚幅の機能検査並びに坐骨神経及び骨格筋の組織学検査に異常がなく、当施設の背景データ（Mean±2S.D.：890±384 g、9 試験、2011/04-2016/03）内であり、交配群雌及び非交配群雌に同変化が認められないことから、偶発的変化と判断した。

非交配群雌の 1000 mg/kg 群で投与期間終了時に白血球数及び大型非染色球の数と比率に高値が認められたが、当施設の背景データ内であり、雄及び交配群雌に同変化が認められないことから、偶発的変化と判断した。また、同群でリンパ球数の高値が認められたが、リンパ球比率は対照群との間に有意差はなく、骨髄及び動物の一般状態に異常がないこと、雄及び交配群雌に同変化が認められないことから、偶発的変化と判断した。

項目（単位）	対照群	1000 mg/kg 群	背景データ
白血球数(10^2/μL)	41.8	68.3	78.6±18.2
大型非染色球数(10^2/μL)	0.1	0.5	0.3±0.2
大型非染色球率(%)	0.3	0.7	0.5±0.2
リンパ球数(10^2/μL)	29.8	56.3	39.9±11.6

背景データ Mean±2S.D.、13 試験、2011/04-2016/03

非交配群雌の 1000 mg/kg 群で投与期間終了時にカルシウム、総たん白質及びアルブミン量に低値が認められた。しかし、いずれもごく軽微な変動であり、肝臓、腎臓及び甲状腺の機能や組織学検査に異常がなく、当施設の背景データと大差ない変化であることから、偶発的変化と判断した。

群/性	項目（単位）	対照群	1000 mg/kg 群	背景データ
非交配群雌	カルシウム（mg/dL）	10.3	10.0	9.9±0.4
	総たん白質（g/dL）	6.3	5.9	6.2±0.2
	アルブミン（g/dL）	3.7	3.4	3.7±0.2

背景データ Mean±2S.D.、13 試験、2011/04-2016/03

雄の 300 及び 1000 mg/kg 群で投与期間終了時に肝臓の絶対及び相対重量に低値が認められた。しかし、絶対重量は各被験物質投与群で大差ないことから、むしろ、対照群の肝臓重量が背景データ Mean±2S.D.「13.02±1.46」に比べて高値であったため、統計学的有意差が認められたと考えられ、偶発的変化と判断した。また、非交配群雌の 1000 mg/kg 群で卵巣の絶対及び相対重量に高値が認められた。軽微な背景データ内の変動であり、卵巣の組織学検査に異常がなく、卵巣機能（腟及び子宮の性周期）に異常がないことを考え合わせると、偶発的変化と判断した。

群/性	器官	項目	対照群	300 mg/kg 群	1000 mg/kg 群	背景データ
雄	肝臓	絶対重量	15.09	13.48	13.00	13.02±1.46
		相対重量	2.71	2.49	2.47	2.61±0.24
非交配群雌	卵巣	絶対重量	76.5	-	91.4	87.5±12.8
		相対重量	27.9	-	33.1	33.0±5.2

背景データ Mean±2S.D.、9 試験、2011/04-2016/03

また、回復期間終了時にも雄の 1000 mg/kg 群で肝臓の絶対及び相対重量に低値が認められた。背景データと大差ないこと、肝臓の組織学検査に異常がなく、肝機能に異常がないことから偶発的変化と判断した。

群/性	器官	項目	対照群	1000 mg/kg 群	背景データ
雄	肝臓	絶対重量	14.37	12.07	12.94±1.7
		相対重量	2.58	2.23	2.56±0.18

背景データ Mean±2S.D.、9 試験、2011/04-2016/03

その他の検査では、被験物質投与による影響は認められなかった。

8.2 生殖発生毒性

1000 mg/kg 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、雌雄動物の交尾能、授精能及び受胎能、母動物の妊娠維持、分娩及び哺育行動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、本試験条件下における本被験物質の反復投与毒性に対する雌雄の無影響量及び無毒性量は 1000 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]：エチル=ステアラートの赤外吸収スペクトル測定法による特性試験及び安定性試験並びに GC 法を用いた被験液（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-2839、2016 年）

[2] [redacted]：エチル＝ステアラート：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-R058、2016 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 20: 482-91. 1964.

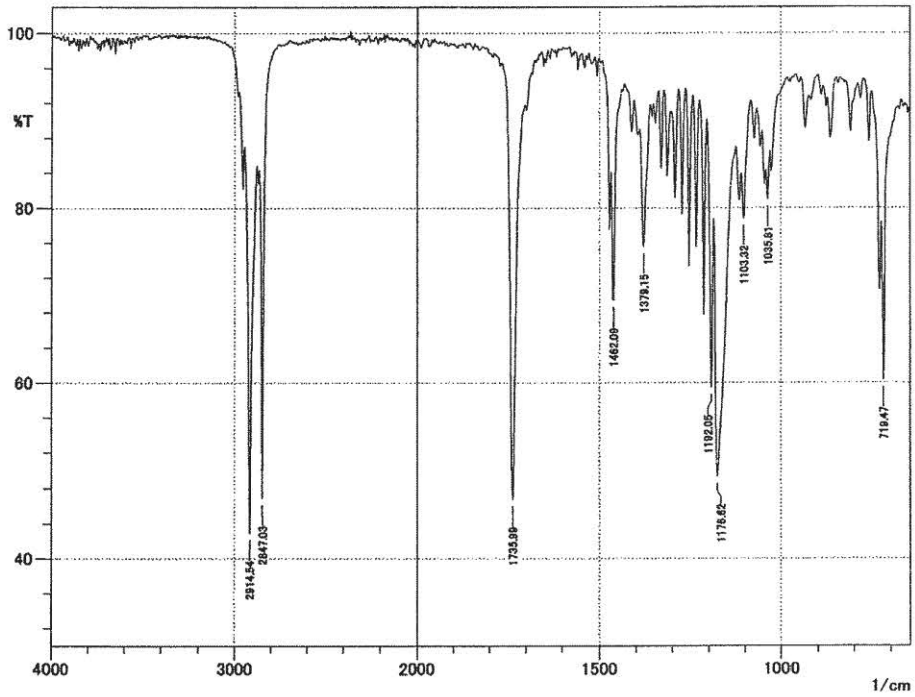
[5] Steel RGD. A multiple comparison rank sum test: Treatments versus control. Biometrics 15: 560-72. 1959.

[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.

試験成績書
（エチル=ステアラートの特性）

試験番号	:	A-2839
ステージ	:	被験物質の使用前
測定日	:	2016 年 9 月 9 日
被験物質	:	エチル=ステアラート （ロット番号：3DX4G）
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]

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

試験成績書
（被験物質の安定性）

試験番号	:	R-1191
ステージ	:	投与期間終了後
測定日	:	2016年12月14日 2016年9月9日（特性のスペクトル）
被験物質	:	エチル=ステアラート （ロット番号：3DX4G）
測定項目	:	赤外吸収スペクトル［全反射測定法（ATR法）］
評価基準	:	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、同一波数のところに同様の強度の吸収を認める。ただし、安定性試験において2300 cm^{-1}付近に吸収が観られた場合、この吸収は二酸化炭素の影響であるため評価対象としない。

1) 杉山　文彦：エチル=ステアラートの赤外吸収スペクトル測定法による特性試験及び安定性試験並びにGC法を用いた被験液（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-2839）

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、同一波数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）

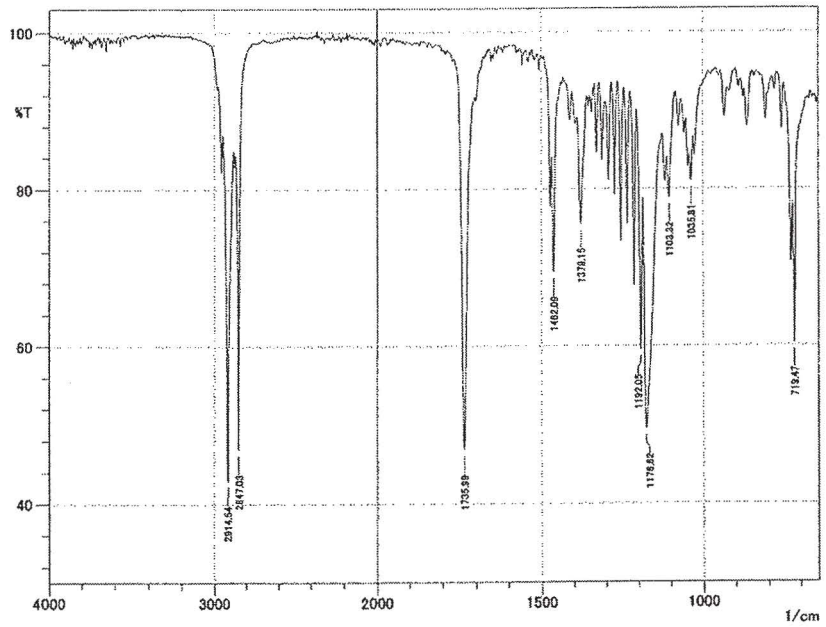
[redacted]

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

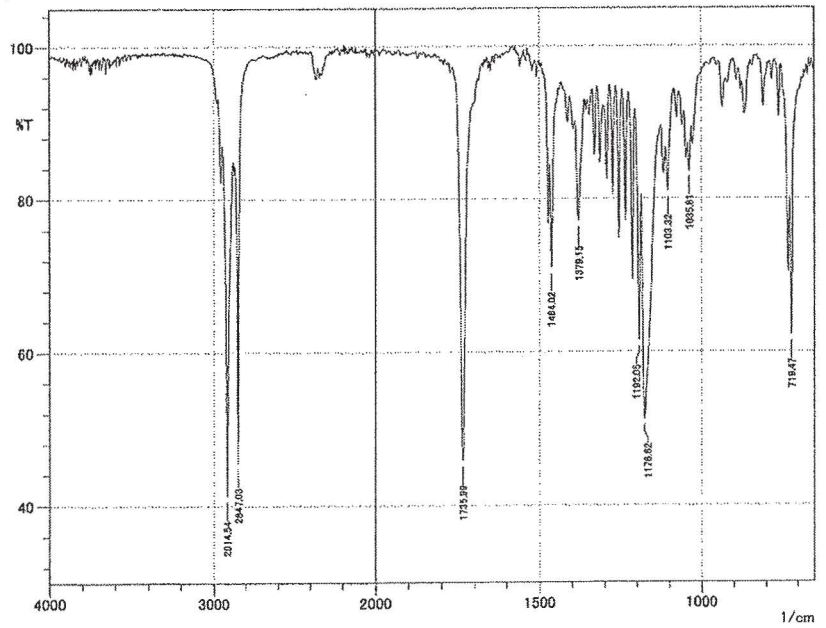
試験成績書
（被験物質の安定性）

試験番号　　：　R-1191
ステージ　　：　投与期間終了後
結果　　：

（特性のスペクトル）



（安定性のスペクトル）



試験成績書
（被験液中エチル=ステアラートの安定性）

試験番号	:	A-2839
被験物質	:	エチル=ステアラート
ロット番号	:	3DX4G
媒体	:	コーン油
形態	:	溶液
測定対象物質	:	エチル=ステアラート
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、非遮光
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	:	安定性として、保存した被験液の残存率｛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。
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]

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

試験成績書
（被験液中エチル=ステアラートの安定性）

試験番号　　：　A-2839

結果：

調製濃度 (mg/mL)		測定濃度 (mg/mL) 調製日	測定濃度 (mg/mL) 保存後
1.00		1.03	1.00
		1.02	0.995
		1.02	1.00
	平均値	1.02	0.998
	残存率（%）	(100)	97.8
200		206	205
		207	204
		204	205
	平均値	206	205
	残存率（%）	(100)	99.5

分析結果

試験番号　：　R-1191
測定項目　：　濃度
ステージ　：　初回投与
分析日　：　2016 年 10 月 12 日

測定試料
　被験物質　：　エチル=ステアラート（ロット番号；3DX4G）
　形態　：　溶液
　媒体　：　コーン油
　調製日　：　2016 年 10 月 12 日

測定対象物質　：　エチル=ステアラート

評価基準
　濃度　：　表示値に対する割合；100.0±10.0%

結果：

表示値 (mg/mL)	測定濃度 (mg/mL)	表示値に対する割合 (%)
20	20.1	100.5
60	61.3	102.2
200	204	102.0

判定　：　適

分析結果

試験番号　：　R-1191
測定項目　：　濃度
ステージ　：　投与 6 週
分析日　：　2016 年 11 月 16 日

測定試料
　被験物質　：　エチル=ステアラート（ロット番号；3DX4G）
　形態　：　溶液
　媒体　：　コーン油
　調製日　：　2016 年 11 月 16 日

測定対象物質　：　エチル=ステアラート

評価基準
　濃度　：　表示値に対する割合；100.0±10.0%

結果：

表示値 (mg/mL)	測定濃度 (mg/mL)	表示値に対する割合 (%)
20	20.7	103.5
60	62.5	104.2
200	211	105.5

判定　：　適

R-1191
Attached Data 6

エチル＝ステアラート：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-R058

被験物質		媒体 a)	エチル＝ステアラート		
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			–	–	–
器官重量	絶対		–	–	–
	相対		–	–	–
剖検	生存	–	–	–	–
	死亡				

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

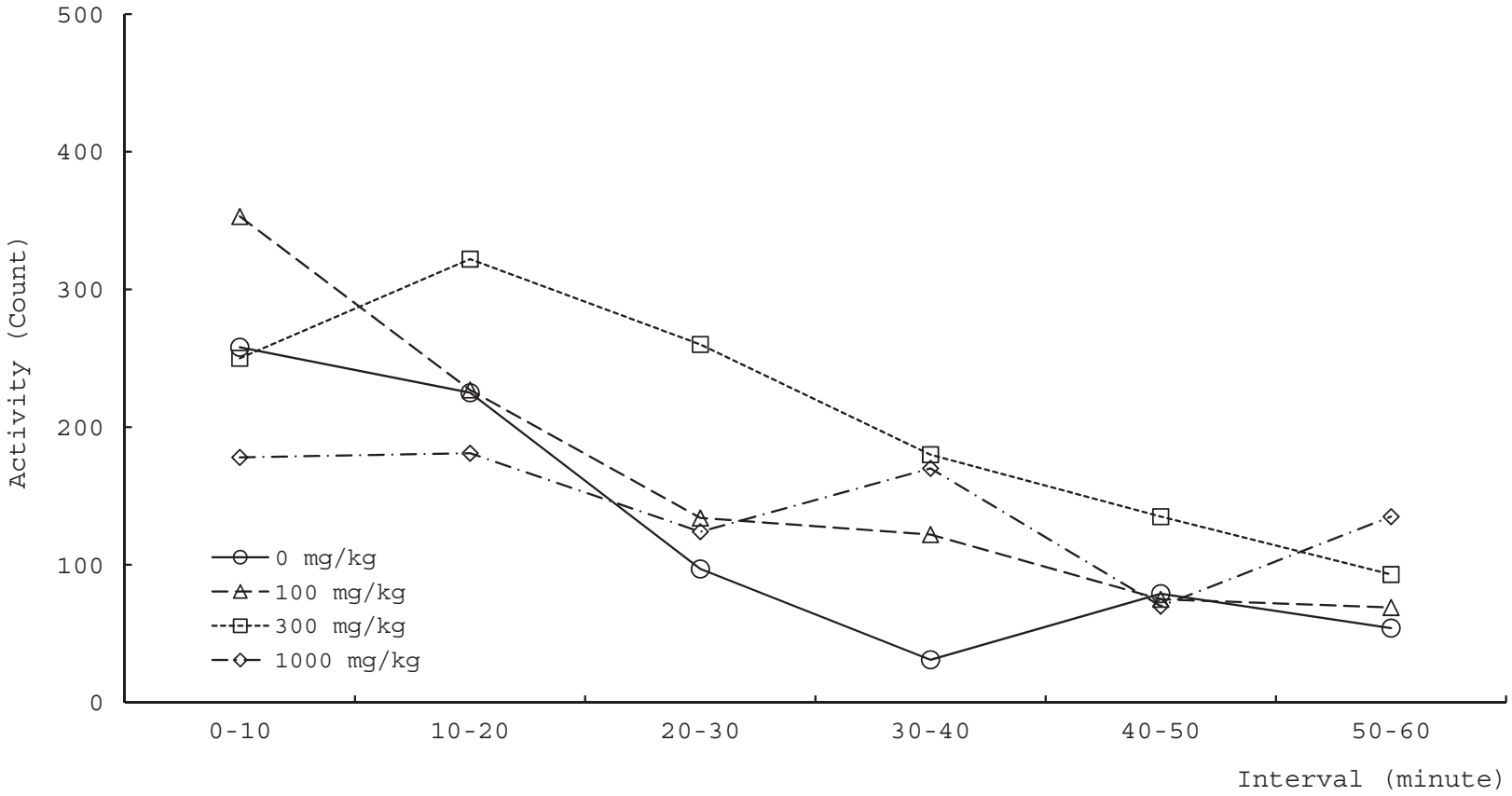


Fig.1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Motor activity of male rats (Week 6 of administration)

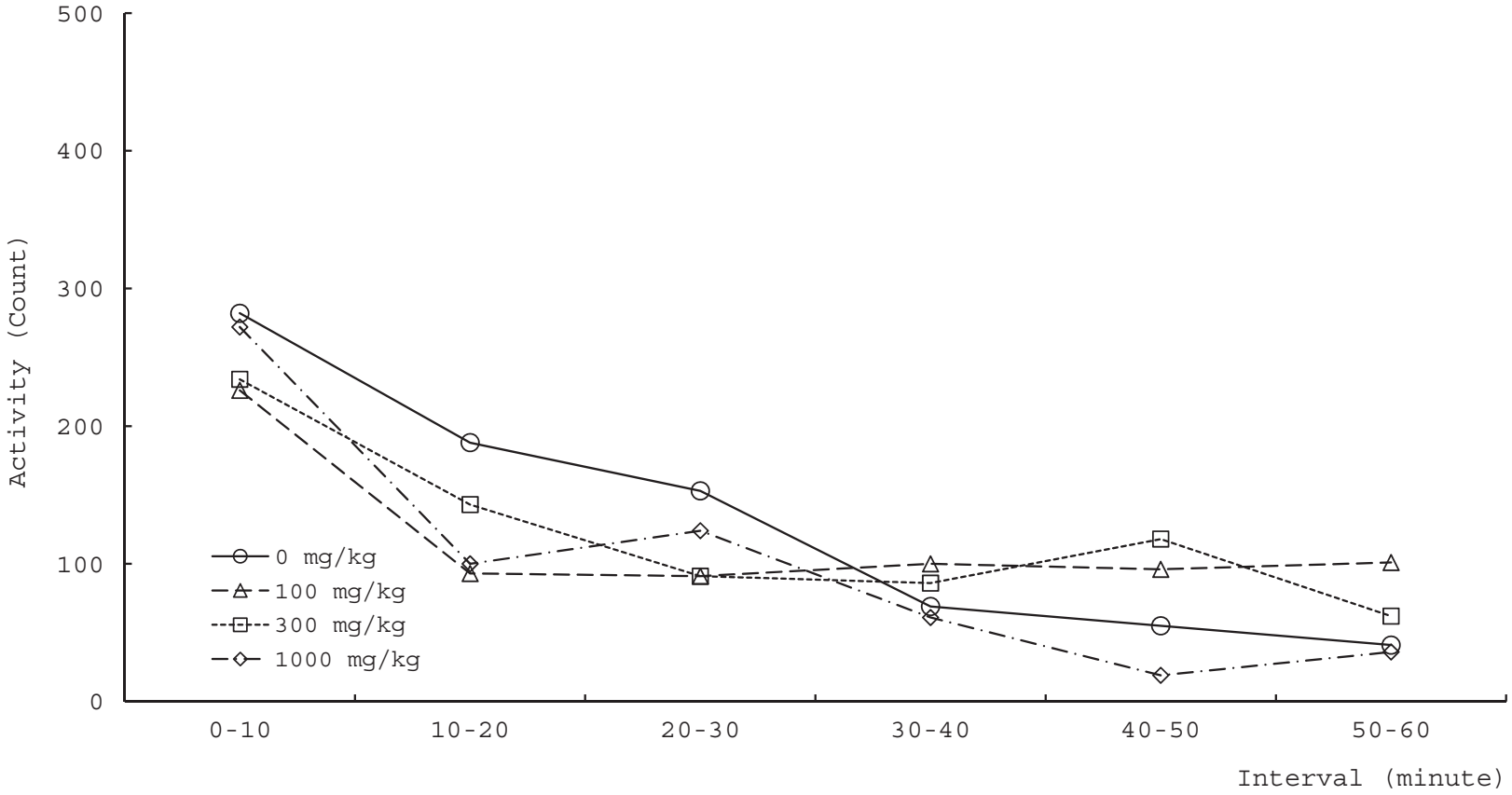


Fig.2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Motor activity of female rats (Lactation day 4)

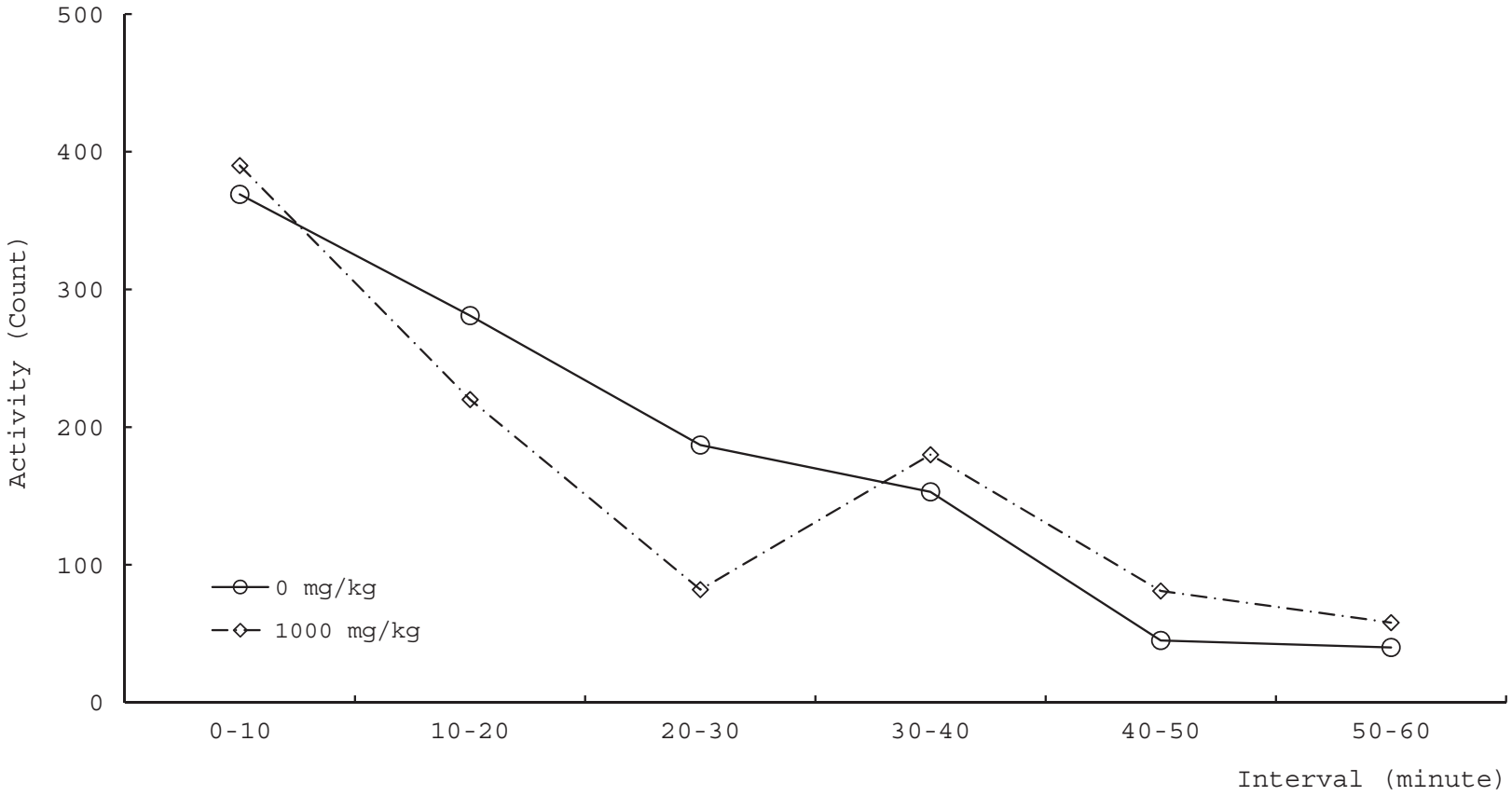


Fig.3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Motor activity of female rats (Week 6 of administration)

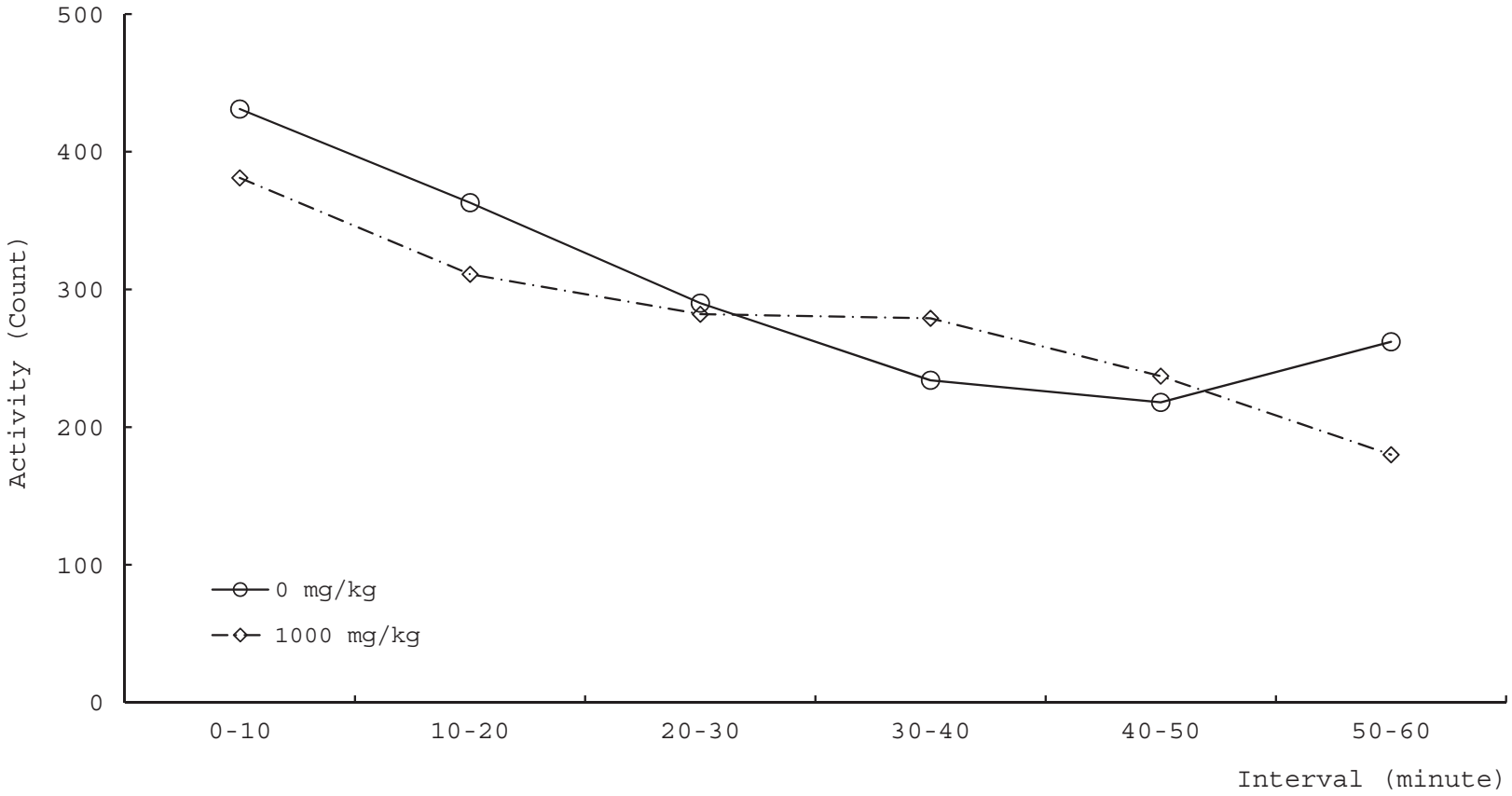


Fig.4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Motor activity of male rats (Week 2 of recovery)

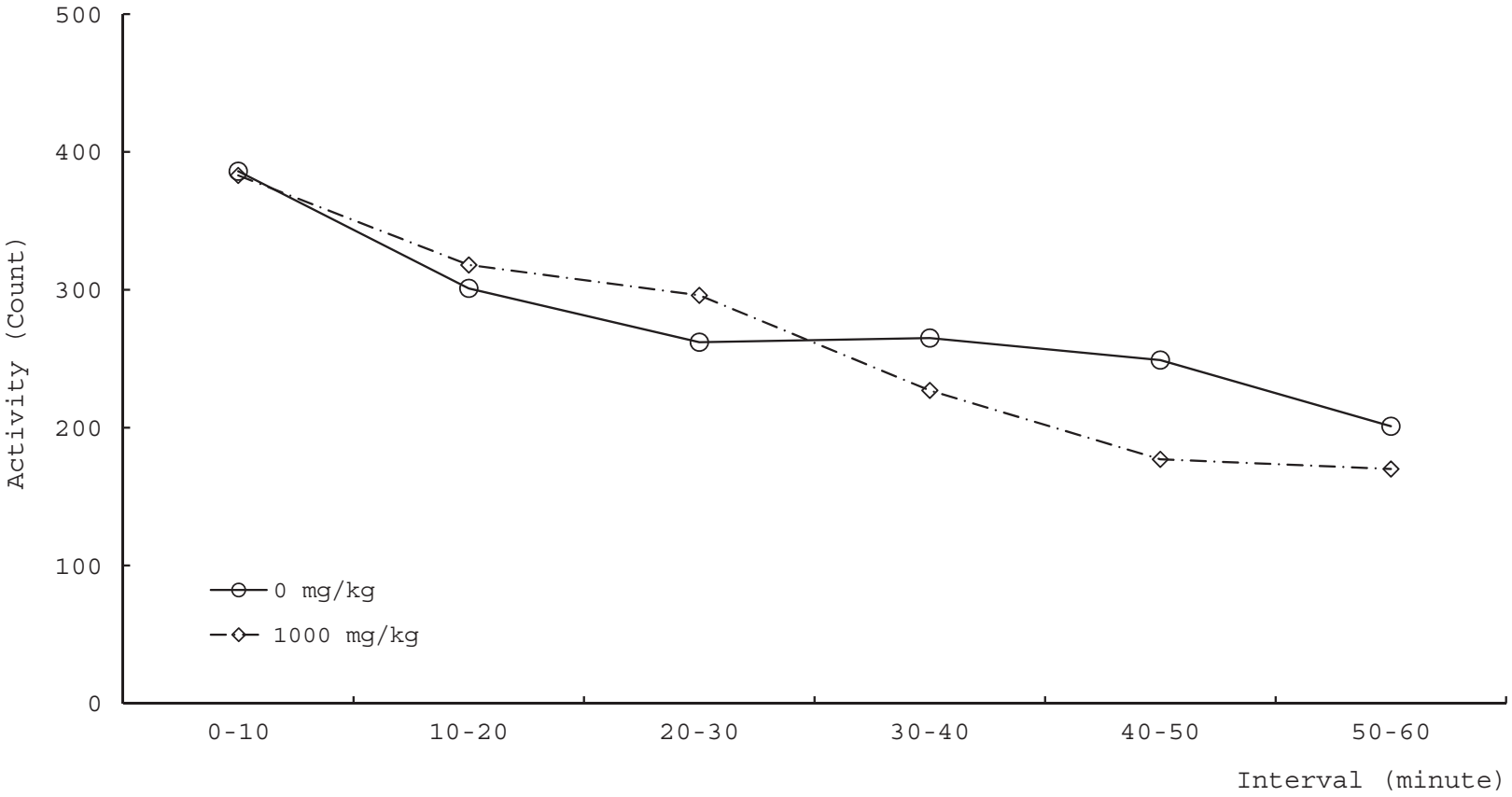


Fig.5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Motor activity of female rats (Week 2 of recovery)

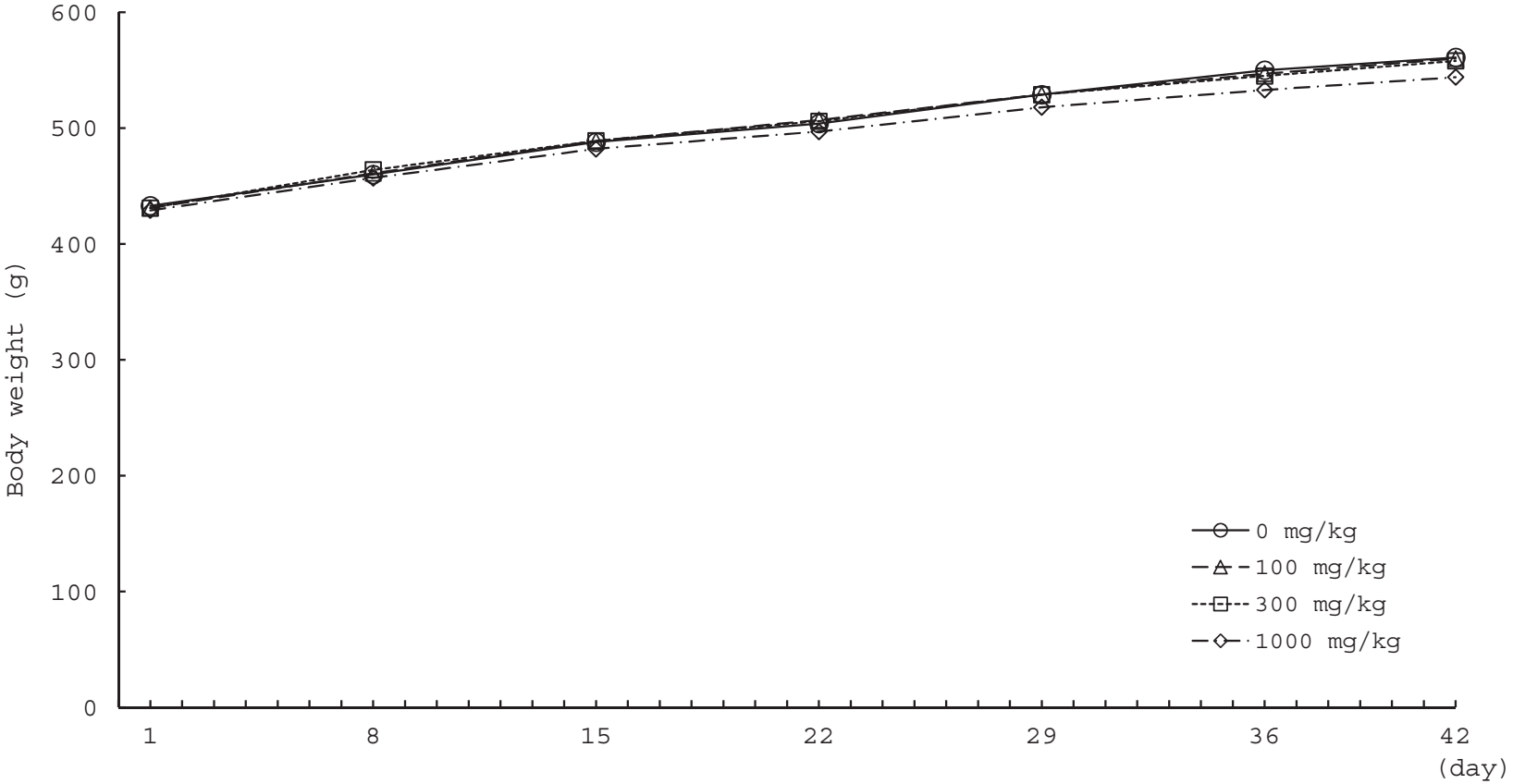


Fig.6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

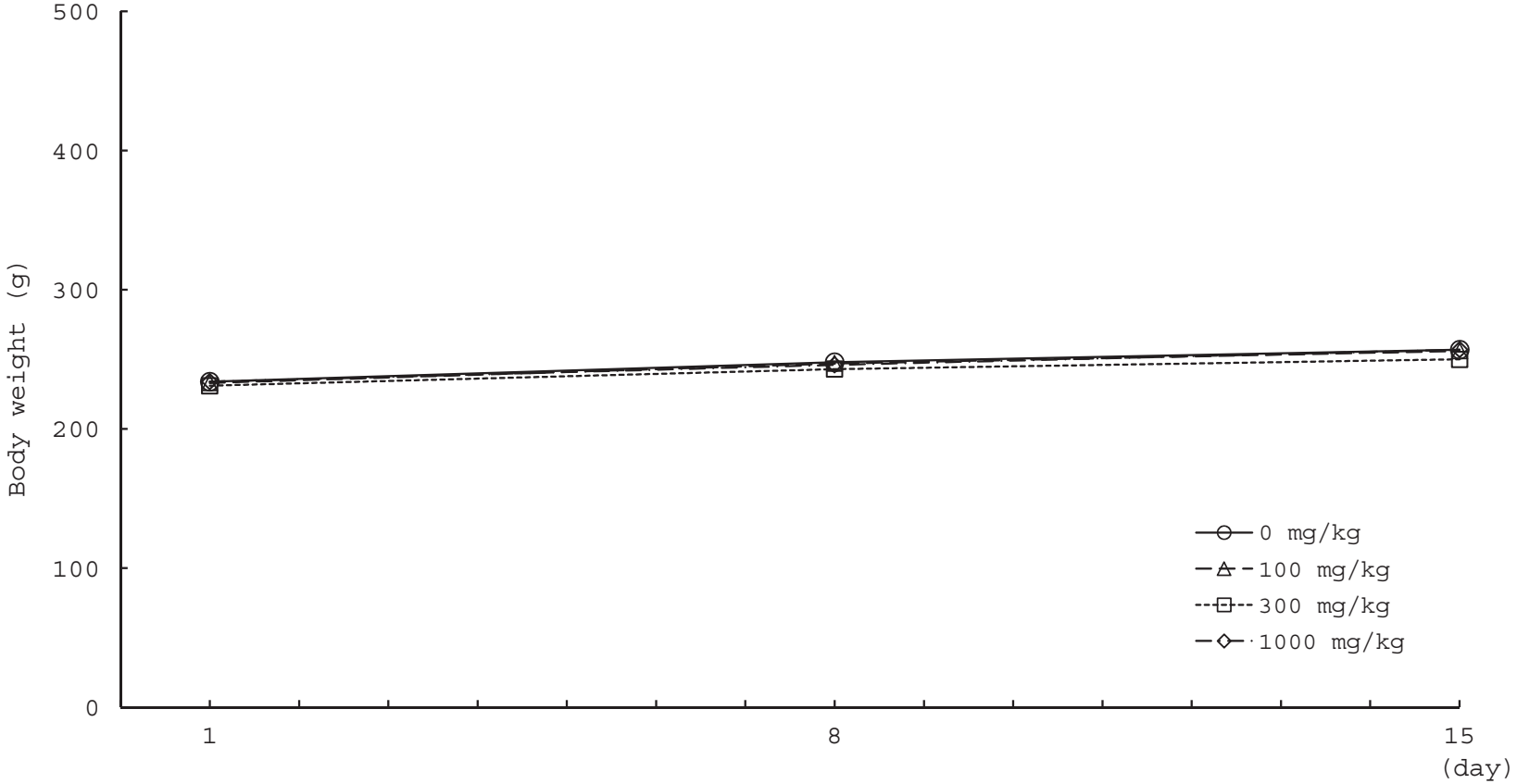


Fig.7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

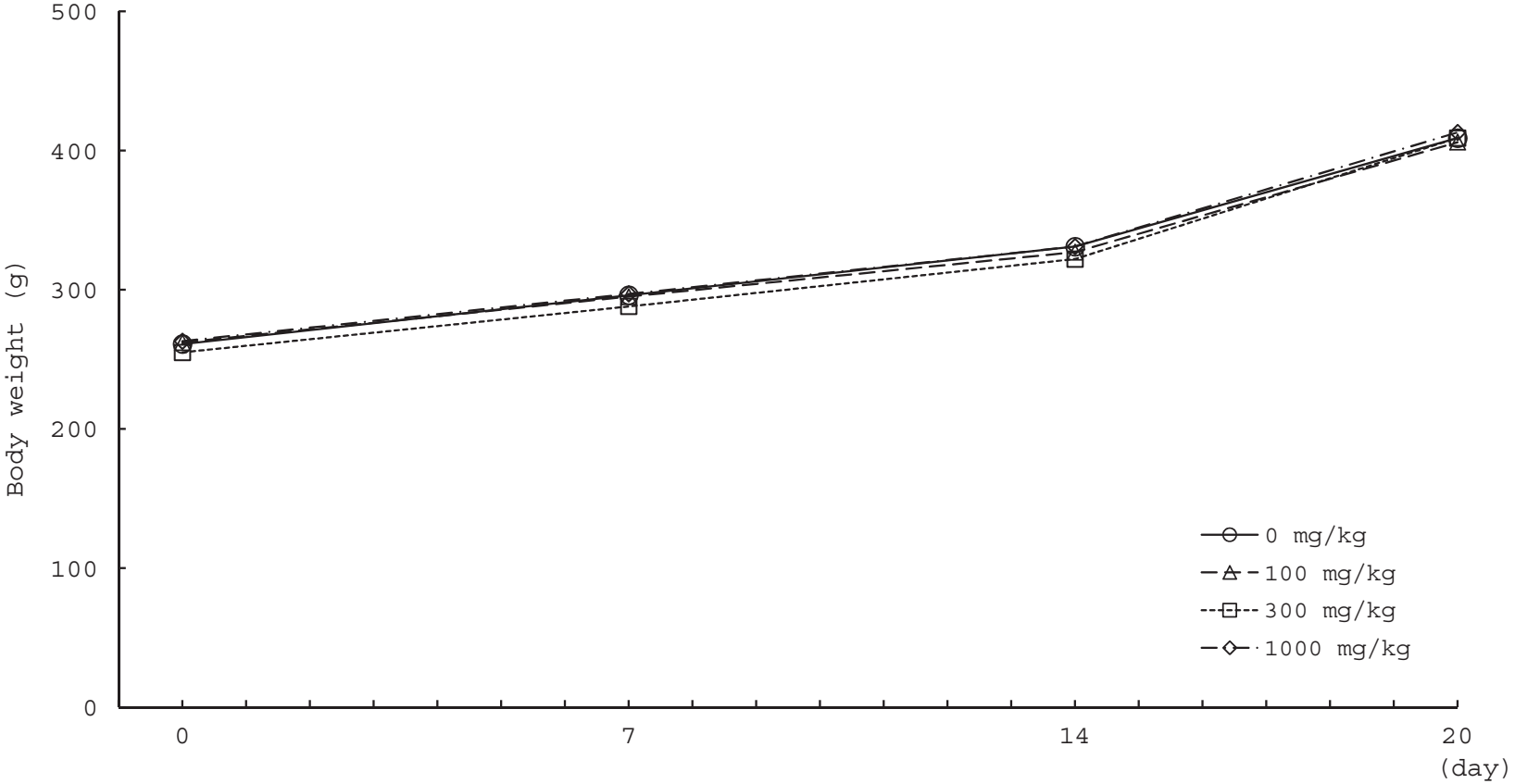


Fig.8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

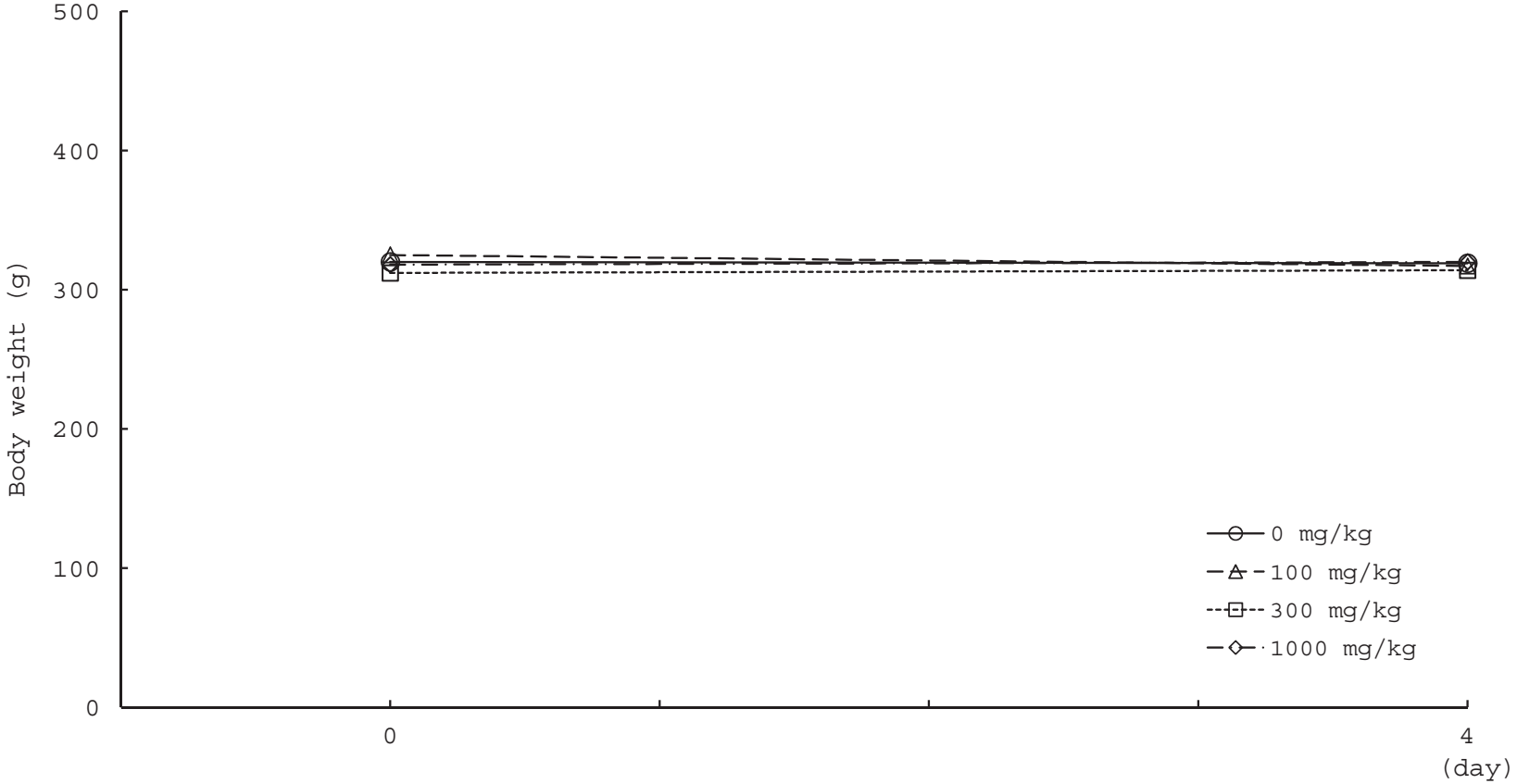


Fig.9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

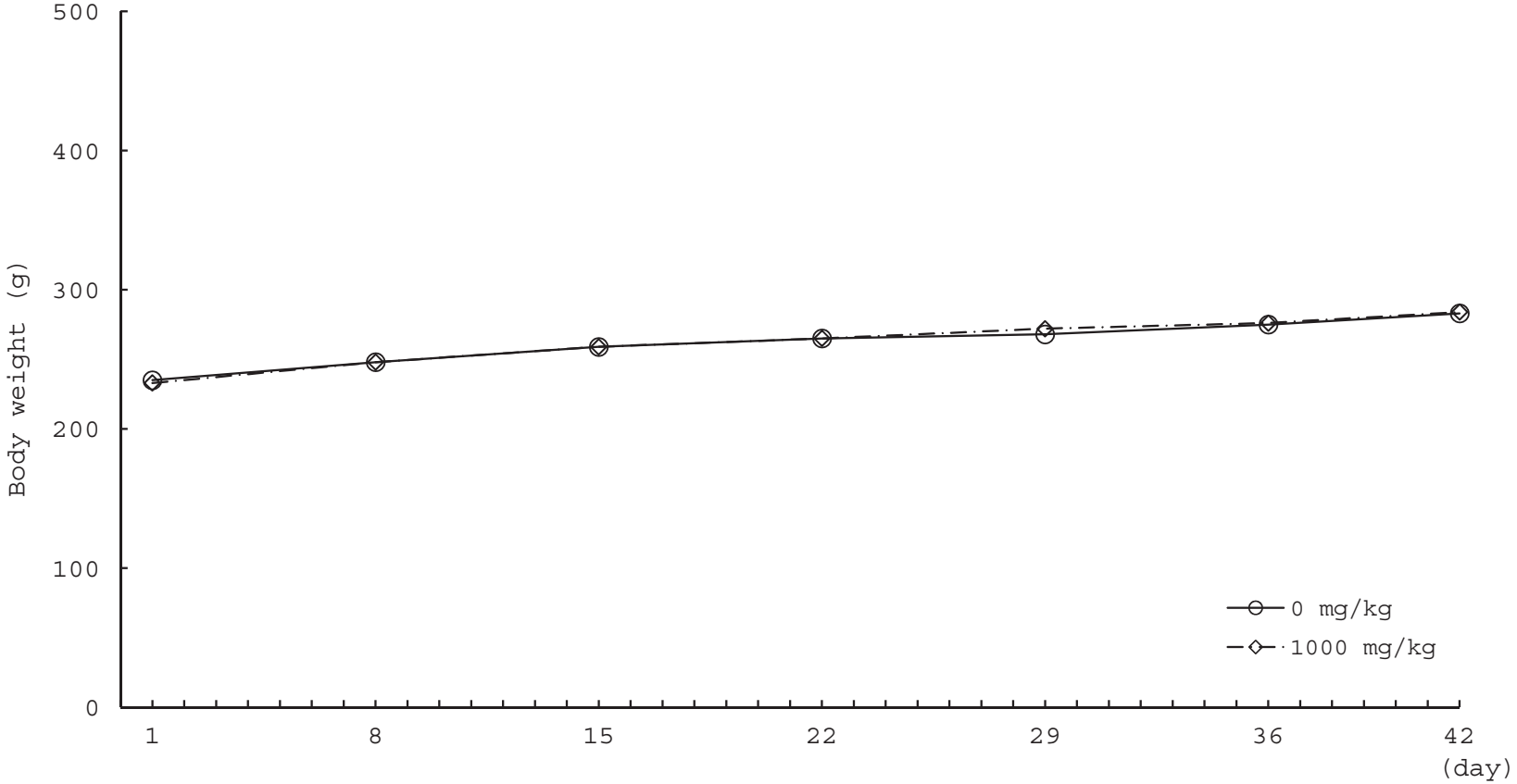


Fig.10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Body weight of female rats (Administration period)

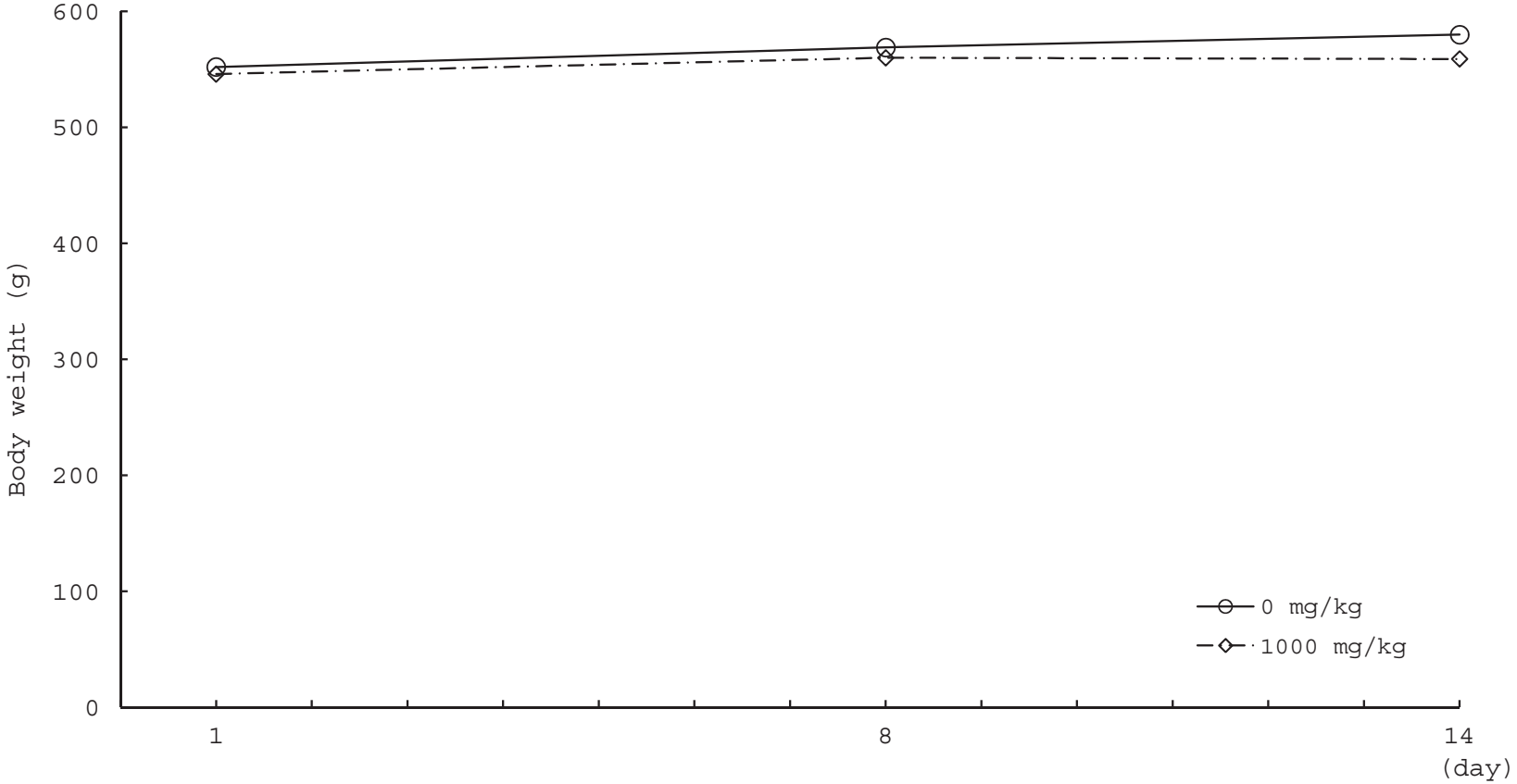


Fig.11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Body weight of male rats (Recovery period)

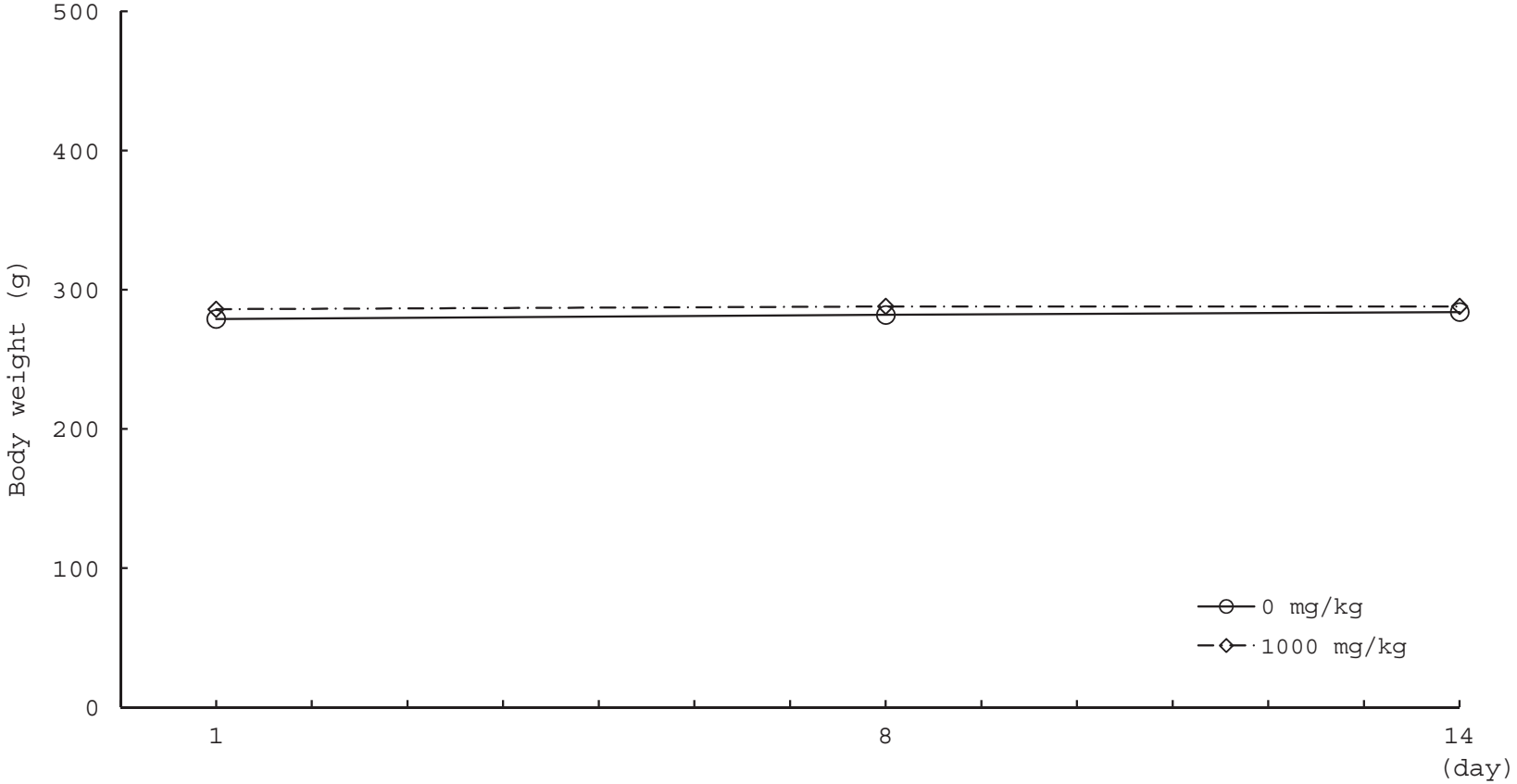


Fig.12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Body weight of female rats (Recovery period)

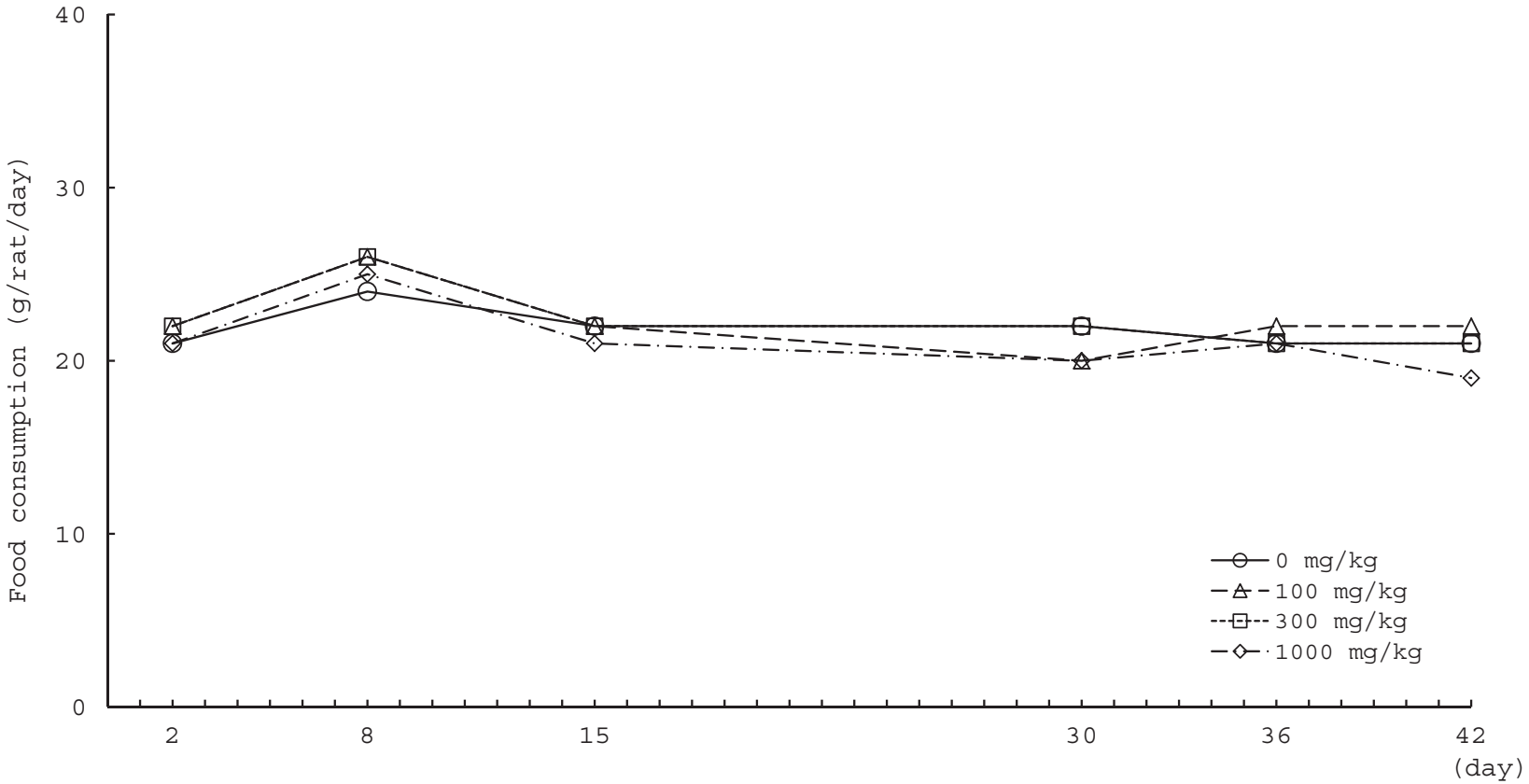


Fig.13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

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

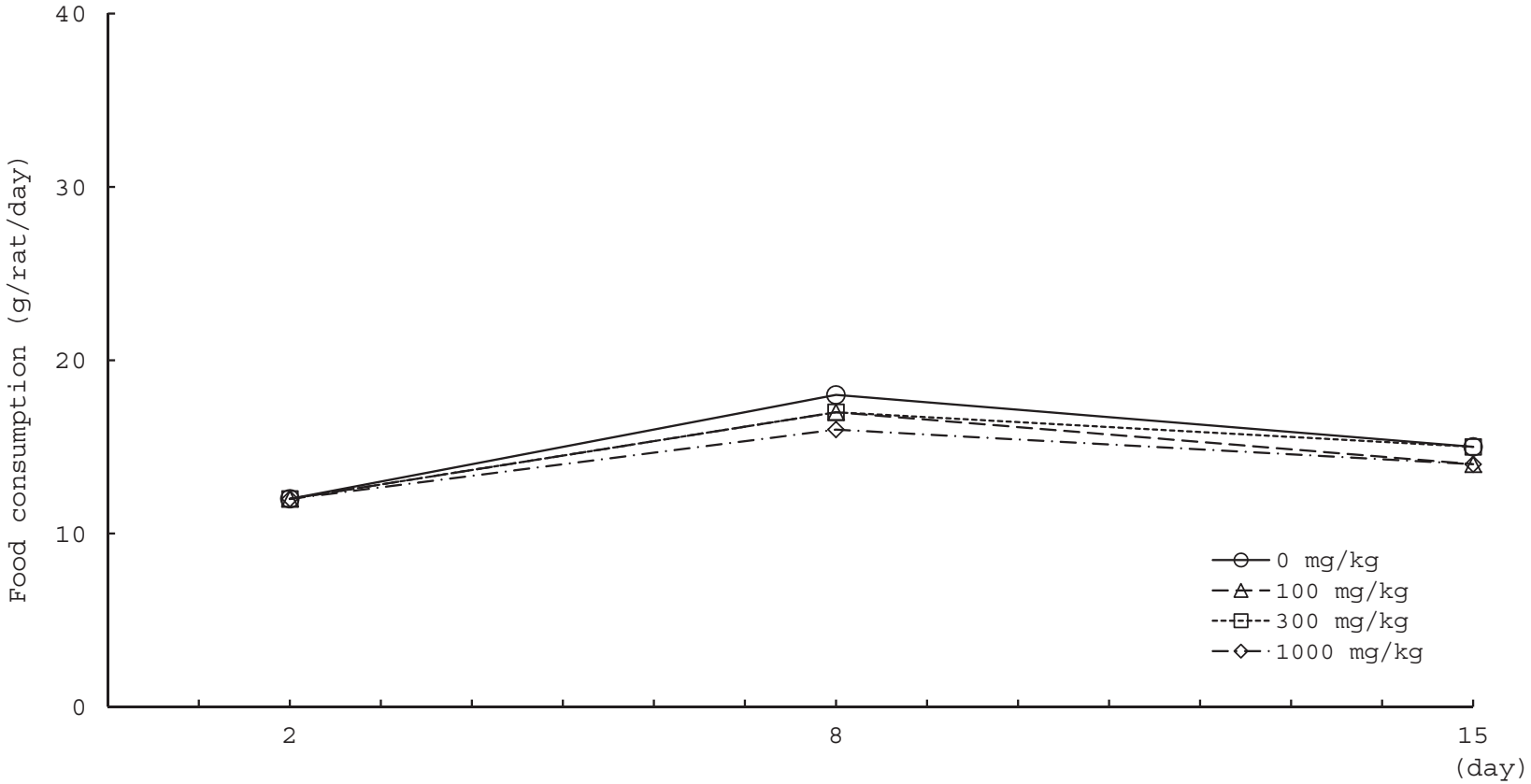


Fig.14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

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

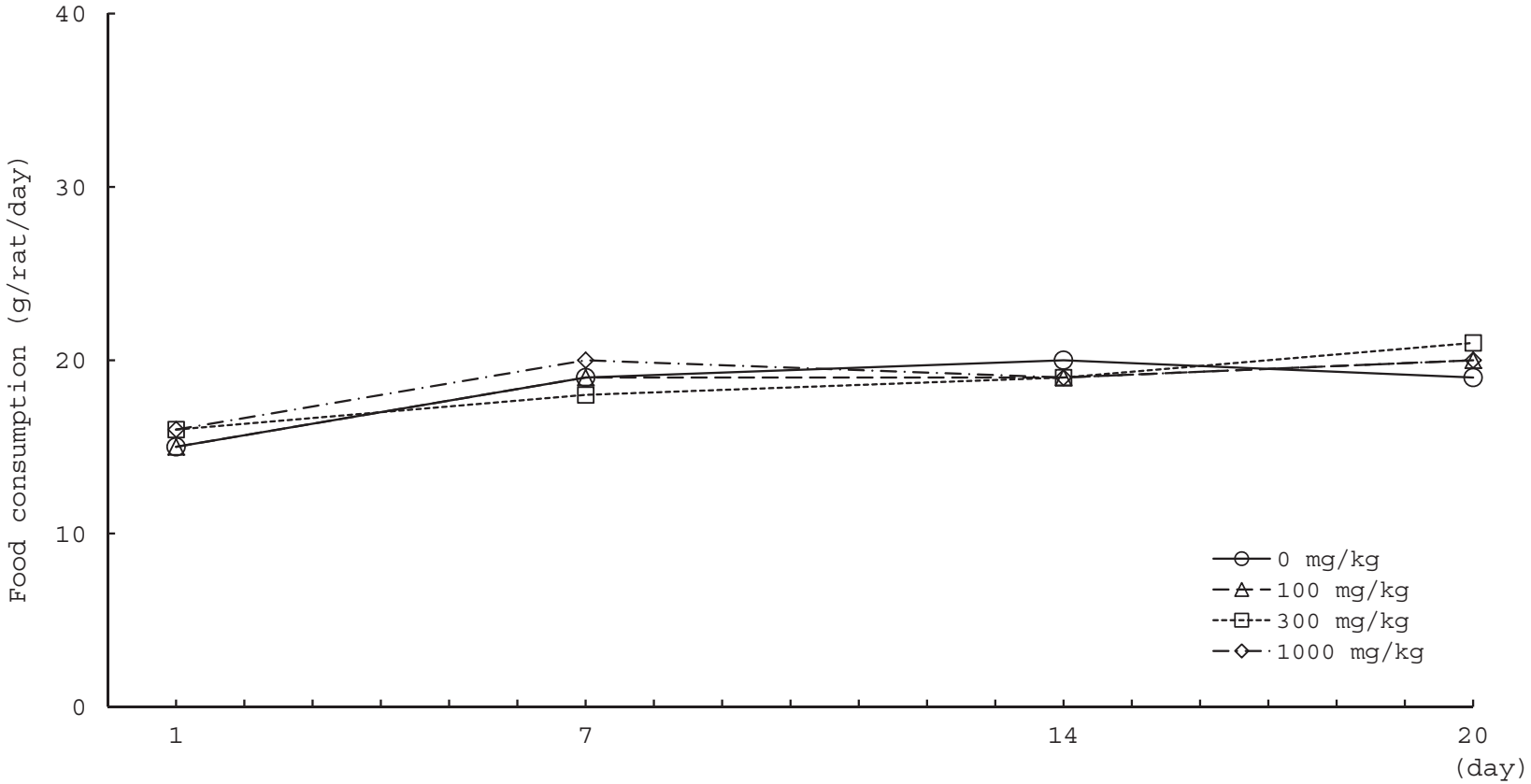


Fig.15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

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

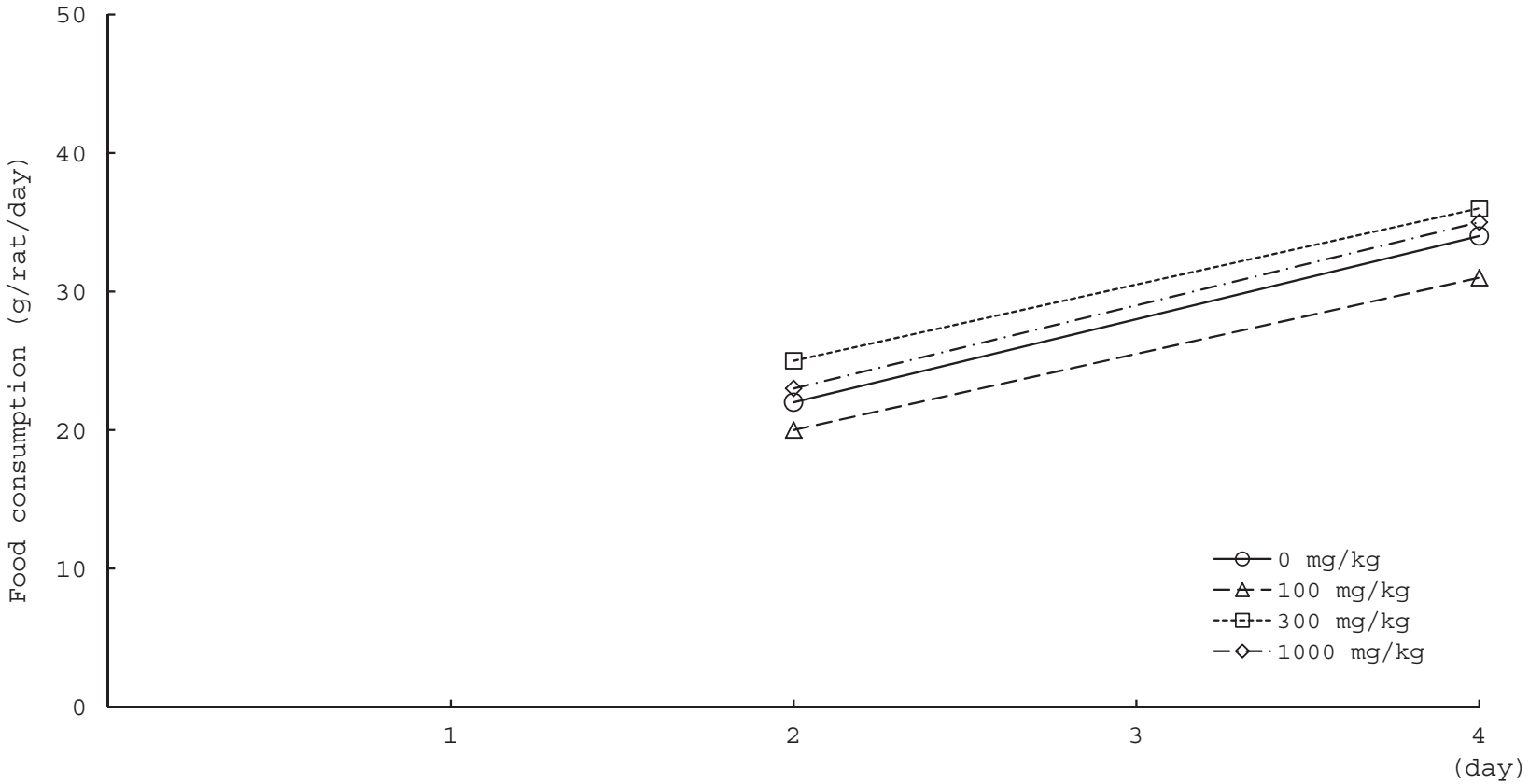


Fig.16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

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

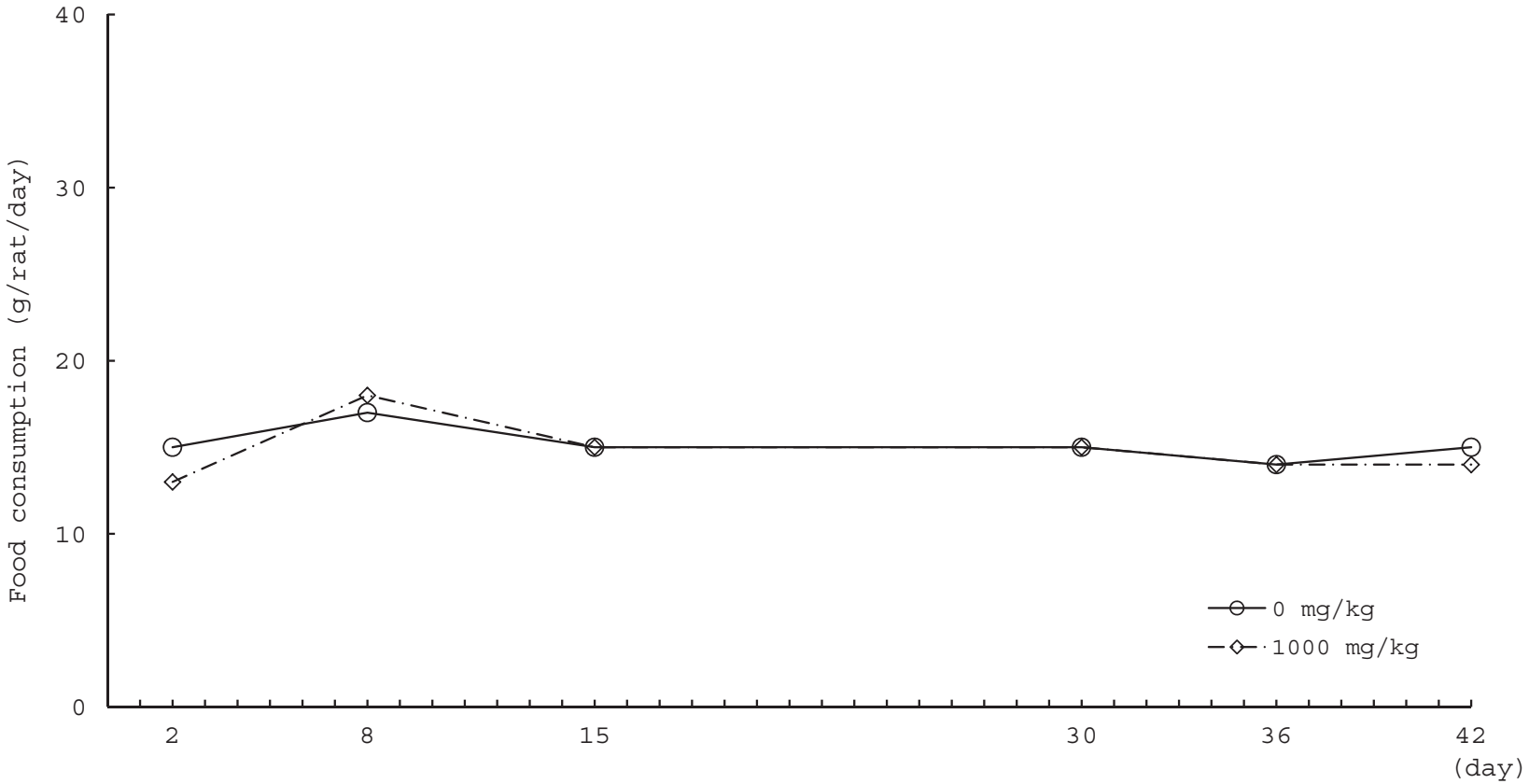


Fig.17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

Food consumption of female rats (Administration period)

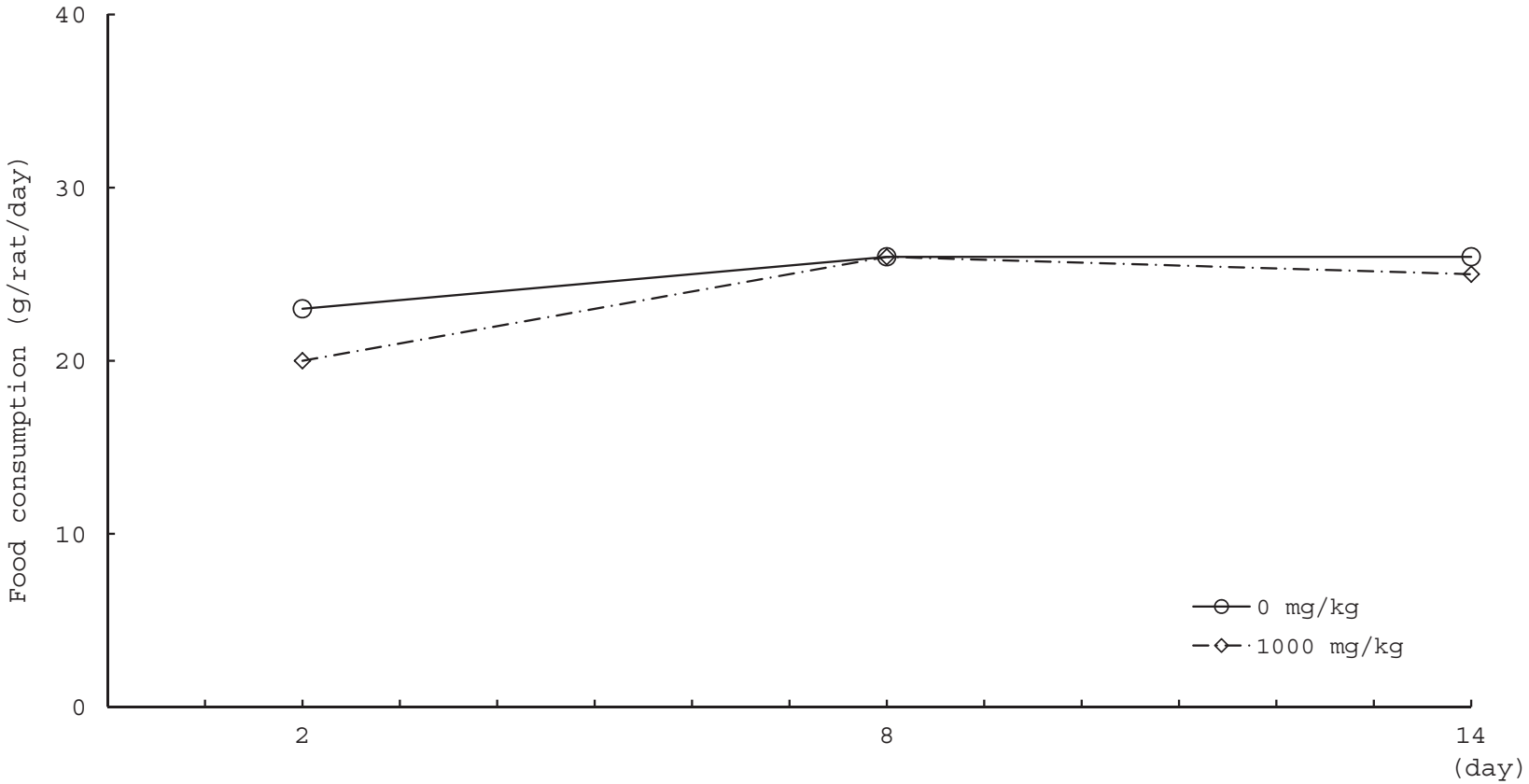


Fig.18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

Food consumption of male rats (Recovery period)

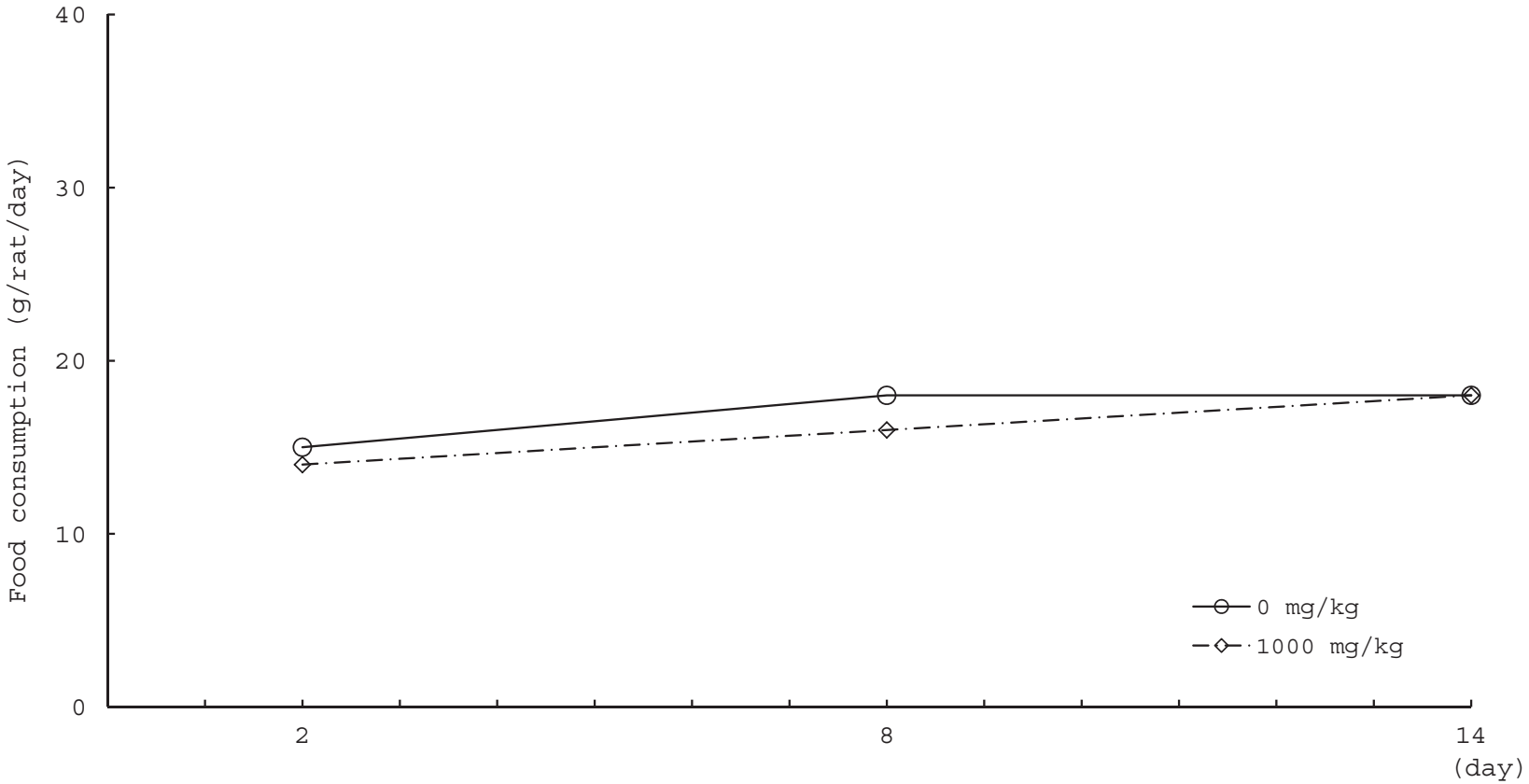


Fig.19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats study

Food consumption of female rats (Recovery period)

Study No.: R-1191

Table 1-1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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

Study No.: R-1191

Table 1-2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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

Study No.: R-1191

Table 1-3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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)
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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

a) : Day of necropsy

Study No.: R-1191

Table 1-4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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
Ethyl Stearate 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

Study No.: R-1191

Table 1-5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
	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
Ethyl Stearate 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
	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
Ethyl Stearate 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	11	1
	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
Ethyl Stearate 1000 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	2
	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

Study No.: R-1191

Table 1-6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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)
Ethyl Stearate 0 mg/kg	Number of animals	11	11	11	11	11	11
	Number of animals with abnormal findings	0	0	0	0	0	0
Ethyl Stearate 100 mg/kg	Number of animals	11	11	11	11	11	11
	Number of animals with abnormal findings	0	0	0	0	0	0
Ethyl Stearate 300 mg/kg	Number of animals	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0
Ethyl Stearate 1000 mg/kg	Number of animals	12	12	12	12	12	12
	Number of animals with abnormal findings	0	0	0	0	0	0

a) : Day of necropsy

Study No.: R-1191

Table 1-7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
Ethyl Stearate 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

Study No.: R-1191

Table 1-8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ethyl Stearate 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
Ethyl Stearate 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

Study No.: R-1191

Table 1-9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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)
Ethyl Stearate 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
Ethyl Stearate 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

a) : Day of necropsy

Study No.: R-1191

Table 1-10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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)
Ethyl Stearate 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
Ethyl Stearate 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

a) : Day of necropsy

Study No.: R-1191

Table 1-11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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)
Ethyl Stearate 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
Ethyl Stearate 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

a) : Day of necropsy

Table 2 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	0	0	0

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

Table 2 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	10	0	0	0

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	10	0	0	0

Test article Dose		Abnormal NC behavior 0	 1	 2	 3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

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

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

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	10	0	0	0

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

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

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

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

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

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

Test article Dose		Abnormal NC behavior 0	 1	 2	 3
Ethyl Stearate 0 mg/kg	n	10	0	0	0
Ethyl Stearate 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

Table 2 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	5	0	0	0

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	5	0	0	0
Ethyl Stearate 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

Table 2 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

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

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

Test article Dose		Abnormal NC behavior 0	 1	 2	 3
Ethyl Stearate 0 mg/kg	n	5	0	0	0
Ethyl Stearate 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

Table 2 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	5	0	0	0

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	5	0	0	0
Ethyl Stearate 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

Table 2 - 23 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	5	0	0	0

Test article / Dose		Abnormal NC behavior			
		0	1	2	3
Ethyl Stearate 0 mg/kg	n	5	0	0	0
Ethyl Stearate 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

Table 2 - 24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 25 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 26 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 27 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 28 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 29 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 30 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 mating

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

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

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

Table 2 - 31 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 32 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 33 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 34 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 35 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 36 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	11	1	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 37 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 38 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 39 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	11	1	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 40 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 41 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 42 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	12	0
Ethyl Stearate 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

Table 2 - 43 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 44 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 45 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 before mating

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

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

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

Table 2 - 46 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 47 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	11	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 48 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 gestation

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

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

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

Table 2 - 49 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 50 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	10	1	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	10	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	10	2	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	11	1	0	0

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

Table 2 - 51 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 gestation

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

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

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

Table 2 - 52 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 53 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 54 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 gestation

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

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

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

Table 2 - 55 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 56 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 57 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 gestation

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

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

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

Table 2 - 58 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 59 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 60 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : F0 lactation

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

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

Table 2 - 61 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0	11	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0	12	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 62 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	0	12	0	0	0

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

Table 2 - 63 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : Administration

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

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

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

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

Table 2 - 64 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	10	0	0	0

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

Table 2 - 65 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	10	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
Ethyl Stearate 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

Table 2 - 66 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	9	1	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	10	0	0	0

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

Table 2 - 67 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	10	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
Ethyl Stearate 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

Table 2 - 68 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	9	1	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	10	0	0	0

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

Table 2 - 69 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : Administration

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

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

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

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

Table 2 - 70 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	8	2	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	9	1	0	0

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

Table 2 - 71 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : Administration

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

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

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

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

Table 2 - 72 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	10	0	0	0

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

Table 2 - 73 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	10	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0	10	0
Ethyl Stearate 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

Table 2 - 74 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	10	0	0	0	10	0	0	0

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

Table 2 - 75 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	5	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
Ethyl Stearate 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

Table 2 - 76 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	5	0	0	0

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

Table 2 - 77 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	5	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0	5	0
Ethyl Stearate 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

Table 2 - 78 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	5	0	0	0

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

Table 2 - 79 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : Recovery

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

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

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

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

Table 2 - 80 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	5	0	0	0

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

Table 2 - 81 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

In-the-hand observation Period : Recovery

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

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

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

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

Table 2 - 82 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	5	0	0	0

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

Table 2 - 83 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 84 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 85 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 before mating

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	12	12
	Mean	5	1
	S.D.	2	1
Ethyl Stearate 100 mg/kg	n	12	12
	Mean	4	0
	S.D.	2	0
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	5	0
	S.D.	1	1
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	6	0
	S.D.	2	0

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 86 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 87 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 before mating

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

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

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

Table 2 - 88 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 before mating

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

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

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 89 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 90 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 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

Table 2 - 91 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 mating

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

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

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 92 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 93 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	10	2	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	9	3	0	0
Ethyl Stearate 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

Table 2 - 94 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 mating

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

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

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 95 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 96 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	7	5	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 97 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 mating

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

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

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 98 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 99 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	10	2	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	8	4	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 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

Table 2 - 100 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 mating

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

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

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 101 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 102 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 103 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 before mating

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	12	12
	Mean	7	0
	S.D.	2	0
Ethyl Stearate 100 mg/kg	n	12	12
	Mean	6	0
	S.D.	2	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	7	0
	S.D.	2	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	7	0
	S.D.	3	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 104 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 105 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 100 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 100 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	11	1	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 106 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 before mating

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	12	12
	Mean	7	0
	S.D.	2	0
Ethyl Stearate 100 mg/kg	n	12	12
	Mean	6	0
	S.D.	1	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	8	0
	S.D.	2	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	7	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 107 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 108 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 100 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 109 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	11	11
	Mean	6	0
	S.D.	3	0
Ethyl Stearate 100 mg/kg	n	11	11
	Mean	5	0
	S.D.	1	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	7	0
	S.D.	2	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	7	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 110 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article / Dose		Abnormal NC behavior 0	1	2	3	Stereotypy NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 111 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 100 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	10	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 112 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	11	11
	Mean	6	0
	S.D.	1	0
Ethyl Stearate 100 mg/kg	n	11	11
	Mean	6	0
	S.D.	2	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	7	0
	S.D.	3	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	6	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 113 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

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

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 114 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 100 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 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

Table 2 - 115 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	11	11
	Mean	6	0
	S.D.	2	0
Ethyl Stearate 100 mg/kg	n	11	11
	Mean	5	0
	S.D.	2	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	6	0
	S.D.	3	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	5	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 116 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 117 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 100 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 118 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	11	11
	Mean	5	0
	S.D.	1	0
Ethyl Stearate 100 mg/kg	n	11	11
	Mean	4	0
	S.D.	2	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	5	0
	S.D.	1	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	4	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 119 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 lactation

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	11	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	0	0	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	12	0	0	12	0	0	0

Test article / Dose		Abnormal NC behavior 0	1	2	3	Stereotypy NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	0	11	0	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	0	12	0	0	0
Ethyl Stearate 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: Sevear
Not calculated : NC

Table 2 - 120 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 100 mg/kg	n	0	11	0	0	0	11	0	0
Ethyl Stearate 300 mg/kg	n	0	12	0	0	0	12	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	11	0	0	11	0	0	0
Ethyl Stearate 100 mg/kg	n	11	0	0	10	1	0	0
Ethyl Stearate 300 mg/kg	n	12	0	0	12	0	0	0
Ethyl Stearate 1000 mg/kg	n	12	0	0	12	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

Table 2 - 121 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 lactation

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	11	11
	Mean	6	0
	S.D.	1	0
Ethyl Stearate 100 mg/kg	n	11	11
	Mean	5	0
	S.D.	2	0
			EF
Ethyl Stearate 300 mg/kg	n	12	12
	Mean	6	0
	S.D.	1	0
			EF
Ethyl Stearate 1000 mg/kg	n	12	12
	Mean	6	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 122 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

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

Test article / Dose		Gait NC U	0	1	2	3	Posture NC N	F	H
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 123 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	9	1	0	0
Ethyl Stearate 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

Table 2 - 124 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	10	10
	Mean	7	0
	S.D.	1	0
Ethyl Stearate 1000 mg/kg	n	10	10
	Mean	8	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 125 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

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

Test article / Dose		Gait NC U	0	1	2	3	Posture NC N	F	H
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 126 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 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

Table 2 - 127 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate	n	10	10
0 mg/kg	Mean	8	0
	S.D.	4	0
Ethyl Stearate	n	10	10
1000 mg/kg	Mean	8	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 128 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	10	0	0	10	0	0	0

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

Test article / Dose		Gait NC U	0	1	2	3	Posture NC N	F	H
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 129 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 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

Table 2 - 130 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	10	10
	Mean	8	0
	S.D.	3	0
Ethyl Stearate 1000 mg/kg	n	10	10
	Mean	8	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 131 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 132 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 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

Table 2 - 133 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	10	10
	Mean	8	0
	S.D.	3	0
Ethyl Stearate 1000 mg/kg	n	10	10
	Mean	10	0
	S.D.	3	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 134 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 135 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 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

Table 2 - 136 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate	n	10	10
0 mg/kg	Mean	9	0
	S.D.	2	0
Ethyl Stearate	n	10	10
1000 mg/kg	Mean	8	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 137 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	10	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	10	0	0	0	10	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	10	0	0	0	10	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 138 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	10	0	0	10	0	0	0
Ethyl Stearate 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

Table 2 - 139 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Administration

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	10	10
	Mean	8	0
	S.D.	3	0
Ethyl Stearate 1000 mg/kg	n	10	10
	Mean	9	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 140 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article		Arousal NC					Convulsion NC			
Dose		-2	-1	0	1	2	0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 141 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	4	1	0	0
Ethyl Stearate 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

Table 2 - 142 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	5	0
	S.D.	2	0
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	4	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 143 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 144 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	2	3	0	0
Ethyl Stearate 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

Table 2 - 145 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	5	0
	S.D.	2	0
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	4	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 146 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 147 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	5	0	0	0
Ethyl Stearate 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

Table 2 - 148 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate	n	5	5
0 mg/kg	Mean	10	0
	S.D.	5	0
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	8	0
	S.D.	1	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 149 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article / Dose		Arousal NC -2	-1	0	1	2	Convulsion NC 0	1	2	3
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0
Ethyl Stearate 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: Sevear
Gait) U: No/minimal location, 0: Nomal, 1: Slight, 2: Moderate, 3: Markedly
Posture) N: Normal, F: Flattened, H: Hunched
Not calculated : NC

Table 2 - 150 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	0	0	4	1	0	0
Ethyl Stearate 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

Table 2 - 151 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : Recovery

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

Test article Dose		Rearing	Defecation count
Ethyl Stearate	n	5	5
0 mg/kg	Mean	9	0
	S.D.	5	0
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	7	0
	S.D.	2	0
			EF

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 152 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
Ethyl Stearate 100 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 300 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	5	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 300 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 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
Not significantly different from Ethyl Stearate 0 mg/kg
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

Table 2 - 153 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : F0 mating

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

Test article Dose		Aerial righting reflex	Landing foot splay mm
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	0	90
	S.D.	0	27
Ethyl Stearate 100 mg/kg	n	5	5
	Mean	0	100
	S.D.	0	13
		EF	
Ethyl Stearate 300 mg/kg	n	5	5
	Mean	0	108
	S.D.	0	25
		EF	
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	0	79
	S.D.	0	25
		EF	

Aerial righting reflex) Total score

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 154 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
Ethyl Stearate 100 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 300 mg/kg	n	0	0	5	0	0	5	0	0	5	0
		EF	EF	EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	5	0	0	0
Ethyl Stearate 100 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 300 mg/kg	n	0	0	5	0	5	0	0	0
		EF	EF	EF	EF	EF	EF	EF	EF
Ethyl Stearate 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
Not significantly different from Ethyl Stearate 0 mg/kg
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

Table 2 - 155 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : F0 lactation

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

Test article Dose		Aerial righting reflex	Landing foot splay mm
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	0	69
	S.D.	0	25
Ethyl Stearate 100 mg/kg	n	5	5
	Mean	0	54
	S.D.	0	23
		EF	
Ethyl Stearate 300 mg/kg	n	5	5
	Mean	0	44
	S.D.	0	12
		EF	
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	0	55
	S.D.	0	21
		EF	

Aerial righting reflex) Total score

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 156 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	5	0	0	0
Ethyl Stearate 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
Not significantly different from Ethyl Stearate 0 mg/kg
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

Table 2 - 157 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : Administration

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

Test article Dose		Aerial righting reflex	Landing foot splay mm
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	0	66
	S.D.	0	7
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	0	62
	S.D.	0	29
		EF	

Aerial righting reflex) Total score

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 158 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	5	0	0	0
Ethyl Stearate 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
Not significantly different from Ethyl Stearate 0 mg/kg
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

Table 2 - 159 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : Recovery

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

Test article Dose		Aerial righting reflex	Landing foot splay mm
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	0	70
	S.D.	0	26
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	0	76
	S.D.	0	5
		EF	

Aerial righting reflex) Total score

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 160 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	0	5	0	0	5	0
Ethyl Stearate 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
Ethyl Stearate 0 mg/kg	n	0	0	5	0	5	0	0	0
Ethyl Stearate 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
Not significantly different from Ethyl Stearate 0 mg/kg
EF : The group mean is the same and unbiased variance 0 for all groups. All data of all groups are same.

Table 2 - 161 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : Recovery

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

Test article Dose		Aerial righting reflex	Landing foot splay mm
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	0	60
	S.D.	0	16
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	0	63
	S.D.	0	16
		EF	

Aerial righting reflex) Total score

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 2 - 162 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5
0 mg/kg	Mean	1566	1035
	S.D.	161	54
Ethyl Stearate	n	5	5
100 mg/kg	Mean	1470	931
	S.D.	197	151
Ethyl Stearate	n	5	5
300 mg/kg	Mean	1424	987
	S.D.	203	63
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	1379	869
	S.D.	240	53
			DT *

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

DT : Dunnett test (two-side)

Table 2 - 163 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5
0 mg/kg	Mean	1397	709
	S.D.	201	114
Ethyl Stearate	n	5	5
100 mg/kg	Mean	1161	571
	S.D.	160	140
Ethyl Stearate	n	5	5
300 mg/kg	Mean	1288	759
	S.D.	118	163
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	1137	733
	S.D.	197	89

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 164 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5
0 mg/kg	Mean	1050	595
	S.D.	124	46
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	1117	615
	S.D.	173	127

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 165 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	5	5
	Mean	1956	1512
	S.D.	171	141
Ethyl Stearate 1000 mg/kg	n	5	5
	Mean	2121	1304
	S.D.	108	268

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 166 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5
0 mg/kg	Mean	1454	989
	S.D.	115	81
Ethyl Stearate	n	5	5
1000 mg/kg	Mean	1443	861
	S.D.	79	93

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 167 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5
0 mg/kg	Mean	258	225	97	31	79	54	744
	S.D.	150	130	85	40	139	94	533
Ethyl Stearate	n	5	5	5	5	5	5	5
100 mg/kg	Mean	353	227	134	122	75	69	981
	S.D.	64	123	102	92	85	114	348
Ethyl Stearate	n	5	5	5	5	5	5	5
300 mg/kg	Mean	250	322	260	180	135	93	1240
	S.D.	152	81	122	134	157	100	598
Ethyl Stearate	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	178	181	124	170	70	135	859
	S.D.	122	120	110	110	90	127	357

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 168 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5
0 mg/kg	Mean	282	188	153	69	55	41	789
	S.D.	83	90	61	75	46	68	145
Ethyl Stearate	n	5	5	5	5	5	5	5
100 mg/kg	Mean	226	93	91	100	96	101	707
	S.D.	107	26	102	130	109	101	432
Ethyl Stearate	n	5	5	5	5	5	5	5
300 mg/kg	Mean	234	143	91	86	118	62	733
	S.D.	121	129	125	101	122	91	545
Ethyl Stearate	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	272	100	124	61	19	36	611
	S.D.	92	113	103	101	28	64	323

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 169 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5
0 mg/kg	Mean	369	281	187	153	45	40	1076
	S.D.	44	143	113	130	69	49	360
Ethyl Stearate	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	390	220	82	180	81	58	1011
	S.D.	46	101	155	119	87	82	352

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 170 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5
0 mg/kg	Mean	431	363	290	234	218	262	1799
	S.D.	43	113	80	107	70	63	330
Ethyl Stearate	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	381	311	282	279	237	180	1670
	S.D.	37	47	77	88	46	93	218

Not significantly different from Ethyl Stearate 0 mg/kg

Table 2 - 171 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5
0 mg/kg	Mean	386	301	262	265	249	201	1664
	S.D.	32	20	38	42	78	77	91
Ethyl Stearate	n	5	5	5	5	5	5	5
1000 mg/kg	Mean	383	318	296	227	177	170	1570
	S.D.	31	122	182	135	74	152	396

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Unit : g Species : Rat

Test article		/Day							Body weight
Dose		1	8	15	22	29	36	42	gain
Ethyl Stearate	n	12	12	12	12	12	12	12	12
0 mg/kg	Mean	433	460	488	504	529	550	561	128
	S.D.	11	15	18	20	25	30	29	20
Ethyl Stearate	n	12	12	12	12	12	12	12	12
100 mg/kg	Mean	431	461	489	507	529	547	560	129
	S.D.	12	15	18	21	24	25	23	21
Ethyl Stearate	n	12	12	12	12	12	12	12	12
300 mg/kg	Mean	431	464	489	506	529	545	558	127
	S.D.	11	16	18	21	21	20	25	19
Ethyl Stearate	n	12	12	12	12	12	12	12	12
1000 mg/kg	Mean	429	457	482	497	518	533	544	115
	S.D.	12	13	15	19	22	23	24	16

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15

Sex : Female Unit : g Species : Rat

Test article		/Day			Body weight
Dose		1	8	15	gain
Ethyl Stearate	n	12	12	12	12
0 mg/kg	Mean	234	248	257	23
	S.D.	13	13	12	4
Ethyl Stearate	n	12	12	12	12
100 mg/kg	Mean	233	247	256	23
	S.D.	10	12	13	10
Ethyl Stearate	n	12	12	12	12
300 mg/kg	Mean	231	243	250	18
	S.D.	12	12	13	7
Ethyl Stearate	n	12	12	12	12
1000 mg/kg	Mean	234	246	257	23
	S.D.	13	14	15	7

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	11	11	11	11	11
0 mg/kg	Mean	261	296	331	409	148
	S.D.	14	19	22	30	20
Ethyl Stearate	n	11	11	11	11	11
100 mg/kg	Mean	262	295	327	406	144
	S.D.	13	11	11	18	22
Ethyl Stearate	n	12	12	12	12	12
300 mg/kg	Mean	255	288	322	409	154
	S.D.	14	15	17	22	15
Ethyl Stearate	n	12	12	12	12	12
1000 mg/kg	Mean	263	297	331	413	150
	S.D.	15	19	23	26	14

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 lactation Day 0-5

Sex : Female Unit : g Species : Rat

Test article		/Day		Body weight
Dose		0	4	gain
Ethyl Stearate	n	11	11	11
0 mg/kg	Mean	320	319	-1
	S.D.	26	21	17
Ethyl Stearate	n	11	11	11
100 mg/kg	Mean	325	317	-7
	S.D.	16	13	16
Ethyl Stearate	n	12	12	12
300 mg/kg	Mean	312	314	3
	S.D.	20	21	21
Ethyl Stearate	n	12	12	12
1000 mg/kg	Mean	318	320	2
	S.D.	22	20	17

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Administration

Sex : Female Unit : g Species : Rat

Test article		/Day							Body weight
Dose		1	8	15	22	29	36	42	gain
Ethyl Stearate	n	10	10	10	10	10	10	10	10
0 mg/kg	Mean	235	248	259	265	268	275	283	48
	S.D.	11	15	12	15	18	19	19	14
Ethyl Stearate	n	10	10	10	10	10	10	10	10
1000 mg/kg	Mean	233	248	259	265	272	276	284	51
	S.D.	7	11	10	11	13	14	10	8

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Male Unit : g Species : Rat

Test article		/Day			Body weight
Dose		1	8	14	gain
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	552	569	580	28
	S.D.	32	32	31	1
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	546	560	559	14
	S.D.	31	37	45	15

Not significantly different from Ethyl Stearate 0 mg/kg

Table 3 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Female Unit : g Species : Rat

Test article		/Day			Body weight
Dose		1	8	14	gain
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	279	282	284	5
	S.D.	17	24	23	9
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	286	288	288	2
	S.D.	12	14	11	5

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	12	12	12	12	12	12	12
0 mg/kg	Mean	21	24	22	22	21	21	131
	S.D.	3	3	2	3	2	2	11
Ethyl Stearate	n	12	12	12	12	12	12	12
100 mg/kg	Mean	22	26	22	20	22	22	134
	S.D.	2	4	3	2	2	2	12
Ethyl Stearate	n	12	12	12	12	12	12	12
300 mg/kg	Mean	22	26	22	22	21	21	133
	S.D.	2	4	3	3	2	2	12
Ethyl Stearate	n	12	12	12	12	12	12	12
1000 mg/kg	Mean	21	25	21	20	21	19	127
	S.D.	2	2	3	2	3	3	9

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15

Sex : Female Unit : g Species : Rat

Test article		/Day			Total food
Dose		2	8	15	consumption
Ethyl Stearate	n	12	12	12	12
0 mg/kg	Mean	12	18	15	44
	S.D.	3	2	3	6
Ethyl Stearate	n	12	12	12	12
100 mg/kg	Mean	12	17	14	43
	S.D.	2	2	2	3
Ethyl Stearate	n	12	12	12	12
300 mg/kg	Mean	12	17	15	44
	S.D.	2	2	3	4
Ethyl Stearate	n	12	12	12	12
1000 mg/kg	Mean	12	16	14	43
	S.D.	3	3	2	4

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 gestation Day 0-25

Sex : Female Unit : g Species : Rat

Test article		/Day				Total food
Dose		1	7	14	20	consumption
Ethyl Stearate	n	11	11	11	11	11
0 mg/kg	Mean	15	19	20	19	72
	S.D.	3	4	2	3	10
Ethyl Stearate	n	11	11	11	11	11
100 mg/kg	Mean	15	19	19	20	73
	S.D.	3	1	2	2	4
Ethyl Stearate	n	12	12	12	12	12
300 mg/kg	Mean	16	18	19	21	73
	S.D.	2	2	2	3	5
Ethyl Stearate	n	12	12	12	12	12
1000 mg/kg	Mean	16	20	19	20	75
	S.D.	3	2	2	3	8

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 lactation Day 0-5

Sex : Female Unit : g Species : Rat

Test article		/Day		Total food
Dose		2	4	consumption
Ethyl Stearate	n	11	11	11
0 mg/kg	Mean	22	34	57
	S.D.	6	6	11
Ethyl Stearate	n	11	11	11
100 mg/kg	Mean	20	31	52
	S.D.	3	6	8
Ethyl Stearate	n	12	12	12
300 mg/kg	Mean	25	36	61
	S.D.	4	5	8
Ethyl Stearate	n	12	12	12
1000 mg/kg	Mean	23	35	58
	S.D.	6	6	11

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Administration

Sex : Female Unit : g Species : Rat

Test article		/Day						Total food
Dose		2	8	15	30	36	42	consumption
Ethyl Stearate	n	10	10	10	10	10	10	10
0 mg/kg	Mean	15	17	15	15	14	15	90
	S.D.	2	4	3	2	2	3	11
Ethyl Stearate	n	10	10	10	10	10	10	10
1000 mg/kg	Mean	13	18	15	15	14	14	90
	S.D.	2	2	3	3	3	3	9

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Male Unit : g Species : Rat

Test article		/Day			Total food
Dose		2	8	14	consumption
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	23	26	26	75
	S.D.	2	2	2	5
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	20	26	25	72
	S.D.	3	2	4	8

Not significantly different from Ethyl Stearate 0 mg/kg

Table 4 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Female Unit : g Species : Rat

Test article		/Day			Total food
Dose		2	8	14	consumption
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	15	18	18	51
	S.D.	2	5	2	9
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	14	16	18	48
	S.D.	1	2	3	5

Not significantly different from Ethyl Stearate 0 mg/kg

Table 5 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	0	0	1	1	2	0	1
Ethyl Stearate 100 mg/kg	n	0	0	0	0	1	1	1	1	1
Ethyl Stearate 300 mg/kg	n	0	0	0	0	1	1	2	0	1
Ethyl Stearate 1000 mg/kg	n	0	0	0	0	1	1	0	3	0

Test article / Dose		Protein -	+/-	1+	2+	3+	Ketones -	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	2	2	1	0	0	0	1	3	1	0
Ethyl Stearate 100 mg/kg	n	0	2	3	0	0	1	0	3	1	0
Ethyl Stearate 300 mg/kg	n	2	0	3	0	0	0	2	2	1	0
Ethyl Stearate 1000 mg/kg	n	3	1	0	1	0	1	1	2	0	1

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL

Table 5 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	1	3	1	0	0
Ethyl Stearate 100 mg/kg	n	5	0	0	0	0	1	4	0	0	0
Ethyl Stearate 300 mg/kg	n	4	1	0	0	0	1	4	0	0	0
Ethyl Stearate 1000 mg/kg	n	4	1	0	0	0	1	4	0	0	0

Test article / Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
Ethyl Stearate 0 mg/kg	n	4	1	0	0	5	0	0	0
Ethyl Stearate 100 mg/kg	n	5	0	0	0	5	0	0	0
Ethyl Stearate 300 mg/kg	n	3	2	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	4	1	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

Table 5 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 100 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 300 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 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

Table 5 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 100 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 300 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 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+
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 100 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 300 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article		Cast					Crystal phosphate salt				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	4	1	0	0	0
Ethyl Stearate 100 mg/kg	n	5	0	0	0	0	4	1	0	0	0
Ethyl Stearate 300 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	3	2	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0
Ethyl Stearate 100 mg/kg	n	5	0	0	0	0
Ethyl Stearate 300 mg/kg	n	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Species : Rat

Test article Dose		Urine volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
Ethyl Stearate	n	5	5	5	5	5
0 mg/kg	Mean	13.6	1487	1.4	2.8	1.9
	S.D.	7.0	580	0.5	0.7	0.6
Ethyl Stearate	n	5	5	5	5	5
100 mg/kg	Mean	9.0	2165	1.3	2.9	1.9
	S.D.	3.6	299	0.3	0.6	0.4
Ethyl Stearate	n	5	5	5	5	5
300 mg/kg	Mean	12.2	1653	1.4	3.0	1.9
	S.D.	5.8	392	0.4	0.8	0.5
Ethyl Stearate	n	5	5	5	5	5
1000 mg/kg	Mean	18.2	1858	1.6	3.3	2.2
	S.D.	20.2	819	0.4	1.0	0.5

Not significantly different from Ethyl Stearate 0 mg/kg

Table 5 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

pH

Test article / Dose		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	>=9.0
Ethyl Stearate 0 mg/kg	n	0	0	1	1	2	0	1	0	0
Ethyl Stearate 1000 mg/kg	n	0	0	0	1	2	0	1	1	0

Test article		Protein					Ketones				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	1	2	2	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	3	1	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

Table 5 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female 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+
Ethyl Stearate 0 mg/kg	n	4	1	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
Ethyl Stearate 0 mg/kg	n	4	1	0	0	5	0	0	0
Ethyl Stearate 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

Table 5 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 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

Table 5 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article		RBC					WBC				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article		Squamous epithelial cells					Small round epithelial cells				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	4	1	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	4	1	0	0	0
Ethyl Stearate 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

Table 5 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Species : Rat

Test article Dose		Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
Ethyl Stearate	n	5	5	5	5	5
0 mg/kg	Mean	7.9	1883	0.9	2.0	1.3
	S.D.	4.9	606	0.4	0.6	0.4
Ethyl Stearate	n	5	5	5	5	5
1000 mg/kg	Mean	11.3	1424	1.2	2.3	1.7
	S.D.	5.1	354	0.3	0.5	0.4

Not significantly different from Ethyl Stearate 0 mg/kg

Table 5 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	0	0	0	0	1	1	3
Ethyl Stearate 1000 mg/kg	n	0	0	0	0	0	1	1	1	2

Test article / Dose		Protein -	+/-	1+	2+	3+	Ketones -	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	2	3	0	0	0	1	0	4	0	0
Ethyl Stearate 1000 mg/kg	n	2	1	1	1	0	1	2	2	0	0

Protein) -:Negative , +/-:15 , 1+:30 , 2+:100 , 3+:≥300 mg/dL
Ketones) -:Negative , +/-:5 , 1+:15 , 2+:40 , 3+:80 mg/dL

Table 5 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	0	5	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	1	4	0	0	0

Test article / Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
Ethyl Stearate 0 mg/kg	n	4	1	0	0	5	0	0	0
Ethyl Stearate 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

Table 5 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article		Color									
Dose		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 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

Table 5 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article		RBC					WBC				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article		Squamous epithelial cells					Small round epithelial cells				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	1	4	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	3	2	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Species : Rat

Test article Dose		Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
Ethyl Stearate	n	5	5	5	5	5
0 mg/kg	Mean	17.4	1830	2.2	4.7	3.3
	S.D.	4.7	408	0.5	1.0	0.9
Ethyl Stearate	n	5	5	5	5	5
1000 mg/kg	Mean	19.1	1844	1.8	3.8	2.5
	S.D.	18.8	693	0.4	1.2	0.7

Not significantly different from Ethyl Stearate 0 mg/kg

Table 5 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate 0 mg/kg	n	0	0	0	1	0	1	1	0	2
Ethyl Stearate 1000 mg/kg	n	0	0	1	0	1	1	1	1	0

Test article		Protein					Ketones				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	3	0	2	0	0	3	2	0	0	0
Ethyl Stearate 1000 mg/kg	n	3	1	1	0	0	3	2	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

Table 5 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female 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+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article / Dose		Bilirubin -	Bilirubin 1+	Bilirubin 2+	Bilirubin 3+	Urobilinogen +/-	Urobilinogen 1+	Urobilinogen 2+	Urobilinogen 3+
Ethyl Stearate 0 mg/kg	n	3	2	0	0	5	0	0	0
Ethyl Stearate 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

Table 5 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article Dose		Color									
		LY	Y	DY	BR	RE	RB	WH	BL	CL	OT
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	0	0	0	0	0
Ethyl Stearate 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

Table 5 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article		RBC					WBC				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	5	0	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	5	0	0	0	0

Test article		Squamous epithelial cells					Small round epithelial cells				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	0	5	0	0	0	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 23 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article		Cast					Crystal phosphate salts				
Dose		-	+/-	1+	2+	3+	-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0	3	2	0	0	0
Ethyl Stearate 1000 mg/kg	n	5	0	0	0	0	4	1	0	0	0

Test article		Crystal calcium oxalate				
Dose		-	+/-	1+	2+	3+
Ethyl Stearate 0 mg/kg	n	5	0	0	0	0
Ethyl Stearate 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

Table 5 - 24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Species : Rat

Test article Dose		Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
Ethyl Stearate	n	5	5	5	5	5
0 mg/kg	Mean	6.9	2195	1.2	2.2	1.6
	S.D.	1.2	177	0.3	0.6	0.3
Ethyl Stearate	n	5	5	5	5	5
1000 mg/kg	Mean	6.2	1803	0.8	1.6	1.1
	S.D.	0.7	497	0.3	0.4	0.3
						T2 *

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

T2 : Student t-test (two-side)

Table 6 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Species : Rat

Test article / Dose		RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP
		$10^4/\mu L$	g/dL	%	fL	pg	g/dL	%	$10^4/\mu L$	$10^2/\mu L$	%
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	865	15.8	45.3	52.5	18.2	34.8	1.9	98.6	82.4	76.2
	S.D.	39	0.3	0.6	2.1	0.9	0.6	0.2	9.3	17.8	8.2
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	826	15.5	44.2	53.5	18.8	35.1	2.2	101.7	87.0	75.5
	S.D.	35	0.7	1.8	1.1	0.5	0.4	0.5	9.7	16.4	5.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	868	15.9	45.7	52.6	18.4	34.9	1.8	102.5	88.1	70.1
	S.D.	34	0.4	0.7	1.6	0.4	0.4	0.5	8.8	14.9	7.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	828	15.9	45.2	54.5	19.1	35.2	1.8	99.7	90.1	77.1
	S.D.	26	0.7	1.7	1.2	0.3	0.6	0.1	4.1	18.0	9.3

Test article / Dose		NEUT	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO
		%	%	%	%	%	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	18.9	1.5	0.3	2.6	0.5	62.9	15.5	1.2	0.3	2.1
	S.D.	7.7	0.5	0.1	0.8	0.2	16.5	6.5	0.5	0.1	0.6
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	19.2	2.0	0.3	2.5	0.6	65.6	16.7	1.8	0.2	2.2
	S.D.	4.3	0.9	0.1	0.5	0.2	13.1	5.1	1.1	0.0	0.5
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	24.5	1.5	0.3	2.9	0.7	61.2	22.1	1.3	0.3	2.6
	S.D.	6.8	0.4	0.1	1.0	0.3	7.8	9.3	0.4	0.1	1.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	17.7	1.1	0.3	2.9	0.8	70.2	15.3	1.0	0.3	2.6
	S.D.	8.4	0.3	0.1	1.5	0.3	20.6	7.1	0.3	0.2	1.1

Not significantly different from Ethyl Stearate 0 mg/kg

Table 6 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Species : Rat

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	0.4	13.1	17.3	303
	S.D.	0.2	0.3	1.4	31
Ethyl Stearate	n	5	5	5	5
100 mg/kg	Mean	0.5	13.2	16.7	278
	S.D.	0.2	0.7	1.4	8
Ethyl Stearate	n	5	5	5	5
300 mg/kg	Mean	0.6	13.3	16.5	291
	S.D.	0.3	1.0	1.4	31
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	0.8	13.8	17.8	313
	S.D.	0.3	1.0	2.0	66

Not significantly different from Ethyl Stearate 0 mg/kg

Table 6 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Species : Rat

Test article / Dose		RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP
		$10^4/\mu L$	g/dL	%	fL	pg	g/dL	%	$10^4/\mu L$	$10^2/\mu L$	%
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	691	13.4	38.8	56.1	19.4	34.6	5.2	137.2	101.6	60.5
	S.D.	30	0.3	1.2	1.9	0.8	0.4	1.1	26.8	24.4	5.4
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	658	13.3	38.4	58.4	20.2	34.7	5.9	128.1	97.9	63.4
	S.D.	37	0.6	1.5	2.2	0.9	0.2	1.3	10.9	20.9	3.7
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	680	13.5	39.3	57.9	19.9	34.3	6.7	125.7	93.4	59.4
	S.D.	38	0.3	1.1	2.3	0.8	0.5	2.2	35.2	11.6	3.3
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	670	13.3	38.7	57.9	19.9	34.3	6.3	132.5	115.1	62.2
	S.D.	44	0.7	1.6	2.0	0.8	0.7	2.0	5.2	28.8	9.9

Test article / Dose		NEUT	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO
		%	%	%	%	%	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$	$10^2/\mu L$
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	33.9	0.7	0.3	3.8	0.8	62.2	33.7	0.6	0.3	3.9
	S.D.	4.8	0.5	0.1	2.3	0.5	19.9	5.8	0.3	0.1	2.4
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	31.1	0.7	0.2	3.8	0.8	62.4	30.1	0.7	0.2	3.8
	S.D.	3.9	0.2	0.0	1.4	0.4	16.0	5.2	0.3	0.0	1.8
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	35.4	0.4	0.2	3.8	0.8	55.5	33.1	0.4	0.2	3.5
	S.D.	1.9	0.2	0.1	1.6	0.4	7.2	5.1	0.2	0.1	1.5
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	33.1	0.6	0.2	3.2	0.7	71.6	38.0	0.7	0.3	3.7
	S.D.	10.1	0.1	0.1	0.3	0.2	22.5	13.6	0.2	0.1	0.9

Not significantly different from Ethyl Stearate 0 mg/kg

Table 6 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		#LUC 10^2/μL	PT s	APTT s	FIB mg/dL
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	0.8	11.9	14.0	342
	S.D.	0.5	1.1	1.5	79
Ethyl Stearate	n	5	5	5	5
100 mg/kg	Mean	0.8	11.8	14.7	279
	S.D.	0.4	1.3	1.3	49
Ethyl Stearate	n	5	5	5	5
300 mg/kg	Mean	0.7	12.0	13.8	286
	S.D.	0.5	1.0	3.0	42
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	0.8	12.4	14.6	259
	S.D.	0.4	1.0	1.7	21

Not significantly different from Ethyl Stearate 0 mg/kg

Table 6 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Female Species : Rat

Test article / Dose		RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP
		10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	765	15.1	42.6	55.7	19.7	35.3	2.4	101.9	41.8	72.3
	S.D.	29	0.5	1.2	1.4	0.5	0.4	0.3	5.2	11.8	7.5
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	785	15.1	43.0	54.8	19.2	35.1	2.4	110.3	68.3	81.2
	S.D.	29	0.4	1.0	0.7	0.3	0.4	0.3	7.8	21.9	8.6
										T2 *	

Test article / Dose		NEUT	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO
		%	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	23.6	1.5	0.2	2.2	0.3	29.8	10.2	0.7	0.1	0.9
	S.D.	8.0	0.4	0.1	0.5	0.2	6.9	5.7	0.4	0.1	0.2
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	14.7	1.1	0.2	2.2	0.7	56.3	9.1	0.7	0.2	1.5
	S.D.	8.8	0.3	0.1	0.2	0.2	20.9	3.1	0.3	0.1	0.5
						T2 *	A2 *				

Test article / Dose		#LUC	PT	APTT	FIB
		10^2/μL	s	s	mg/dL
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	0.1	13.3	15.1	208
	S.D.	0.1	0.5	0.9	27
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	0.5	14.2	15.0	198
	S.D.	0.2	0.7	0.9	15
		A2 *			

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

A2 : Welch test (two-side), T2 : Student t-test (two-side)

Table 6 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Male Species : Rat

Test article / Dose		RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP
		10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	857	15.5	45.5	53.2	18.1	34.0	1.6	94.5	66.6	78.6
	S.D.	16	0.3	1.0	1.0	0.4	0.4	0.2	7.2	15.8	3.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	854	15.4	44.8	52.5	18.0	34.3	1.3	95.0	77.3	77.6
	S.D.	27	0.8	1.5	0.9	0.5	0.6	0.4	4.5	24.8	7.9

Test article / Dose		NEUT	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO
		%	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	16.7	1.3	0.2	2.6	0.7	52.4	11.0	0.8	0.1	1.7
	S.D.	3.0	0.3	0.1	0.6	0.2	12.9	3.0	0.2	0.1	0.7
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	16.7	1.7	0.3	3.2	0.6	59.4	13.4	1.3	0.2	2.5
	S.D.	7.3	0.2	0.1	0.8	0.1	18.4	7.4	0.5	0.1	1.1
			T2 *								

Test article / Dose		#LUC	PT	APTT	FIB
		10^2/μL	s	s	mg/dL
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	0.4	12.8	16.3	283
	S.D.	0.1	0.7	2.2	37
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	0.5	14.9	17.7	289
	S.D.	0.2	3.5	2.6	34

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

T2 : Student t-test (two-side)

Table 6 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Female Species : Rat

Test article / Dose		RBC	HGB	HCT	MCV	MCH	MCHC	RETIC	PLT	WBC	LYMP
		10^4/μL	g/dL	%	fL	pg	g/dL	%	10^4/μL	10^2/μL	%
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	764	14.7	42.4	55.5	19.1	34.5	2.0	95.7	38.5	77.0
	S.D.	20	0.6	1.9	1.5	0.6	0.6	0.4	9.2	8.2	6.6
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	787	14.9	42.5	54.0	18.9	34.9	1.9	113.4	51.1	76.0
	S.D.	18	0.4	1.3	1.7	0.7	0.4	0.2	13.3	12.3	6.0
									T2 *		

Test article / Dose		NEUT	EOS	BASO	MONO	LUC	#LYMP	#NEUT	#EOS	#BASO	#MONO
		%	%	%	%	%	10^2/μL	10^2/μL	10^2/μL	10^2/μL	10^2/μL
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	18.1	1.3	0.2	2.7	0.7	29.6	7.0	0.5	0.1	1.0
	S.D.	7.0	0.4	0.0	0.8	0.3	6.7	2.9	0.1	0.0	0.4
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	19.3	1.9	0.2	2.1	0.6	39.3	9.4	0.9	0.1	1.1
	S.D.	6.7	0.3	0.0	1.2	0.3	11.5	2.7	0.2	0.0	0.7
			T2 *						T2 **	EF	

Test article / Dose		#LUC	PT	APTT	FIB
		10^2/μL	s	s	mg/dL
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	0.2	13.8	15.2	188
	S.D.	0.1	0.6	1.5	7
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	0.3	12.2	13.6	207
	S.D.	0.2	1.6	1.7	11
					T2 *

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05, ** P<0.01

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.

Table 7 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	60	32	56	1	427	16.6	63	53	101	0.1
	S.D.	9	7	29	0	63	9.3	11	22	12	0.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	59	41	50	0	509	13.8	53	44	86	0.1
	S.D.	7	13	15	1	109	7.3	6	22	12	0.0
											EF
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	65	38	61	1	387	16.6	66	57	99	0.1
	S.D.	10	7	20	1	33	5.9	13	31	19	0.0
											EF
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	60	36	46	0	425	14.3	63	42	96	0.1
	S.D.	7	6	6	1	129	6.5	11	21	17	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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	133	13	0.29	143	4.4	108	10.3	5.7	5.8	3.1
	S.D.	25	3	0.05	1	0.4	1	0.2	0.6	0.1	0.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	138	15	0.30	144	4.7	107	10.0	5.9	5.8	3.1
	S.D.	28	5	0.03	1	0.3	1	0.1	0.5	0.2	0.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	145	11	0.28	144	4.6	107	10.1	5.5	5.7	3.1
	S.D.	27	1	0.02	1	0.2	1	0.4	0.7	0.3	0.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	136	13	0.28	144	4.4	108	10.1	5.6	5.6	3.0
	S.D.	19	2	0.03	1	0.3	1	0.2	0.3	0.2	0.1
											DT *

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

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.

Table 7 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Male Species : Rat

Test article Dose		A/G
Ethyl Stearate 0 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
Ethyl Stearate 100 mg/kg	n	5
	Mean	1.1
	S.D.	0.1
Ethyl Stearate 300 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
Ethyl Stearate 1000 mg/kg	n	5
	Mean	1.1
	S.D.	0.1

Not significantly different from Ethyl Stearate 0 mg/kg

Table 7 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	72	48	47	0	310	29.7	52	54	104	0.1
	S.D.	13	5	10	0	121	24.9	15	20	27	0.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	68	53	45	0	332	25.0	62	61	114	0.1
	S.D.	2	7	9	1	157	18.3	19	18	26	0.0
											EF
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	64	50	42	1	306	22.0	63	81	119	0.1
	S.D.	7	11	11	1	135	10.0	6	23	7	0.0
											EF
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	64	47	60	1	255	43.3	65	69	123	0.1
	S.D.	9	7	30	0	86	24.0	8	42	18	0.0
					ST *						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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	112	19	0.33	143	4.1	104	11.0	8.8	5.7	3.1
	S.D.	3	3	0.05	1	0.5	1	0.3	0.2	0.1	0.1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
100 mg/kg	Mean	118	19	0.36	141	4.2	104	11.0	7.9	5.9	3.3
	S.D.	7	3	0.03	2	0.3	1	0.2	0.9	0.3	0.3
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
300 mg/kg	Mean	123	19	0.32	143	4.0	105	11.0	7.6	5.7	3.2
	S.D.	5	4	0.04	1	0.3	2	0.2	0.5	0.2	0.2
		ST *							ST *		
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	121	17	0.31	143	4.3	106	11.3	9.1	5.9	3.2
	S.D.	19	3	0.05	1	0.2	2	0.5	1.4	0.2	0.1

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

ST : Steel test (two-side)

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

Table 7 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Lactation day 5

Sex : Female Species : Rat

Test article Dose		A/G
Ethyl Stearate 0 mg/kg	n	5
	Mean	1.2
	S.D.	0.1
Ethyl Stearate 100 mg/kg	n	5
	Mean	1.3
	S.D.	0.2
Ethyl Stearate 300 mg/kg	n	5
	Mean	1.3
	S.D.	0.1
Ethyl Stearate 1000 mg/kg	n	5
	Mean	1.2
	S.D.	0.1

Not significantly different from Ethyl Stearate 0 mg/kg

Table 7 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	51	30	41	1	294	38.9	64	29	135	0.1
	S.D.	8	8	7	0	141	24.5	8	8	12	0.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	57	35	41	1	309	26.2	67	25	124	0.1
	S.D.	8	12	4	0	122	5.4	7	6	10	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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	140	16	0.32	142	4.1	108	10.3	4.3	6.3	3.7
	S.D.	4	2	0.04	2	0.1	2	0.2	0.7	0.2	0.2
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	125	15	0.30	143	4.2	109	10.0	4.0	5.9	3.4
	S.D.	14	2	0.05	1	0.1	2	0.2	0.2	0.1	0.1
								T2 *		T2 **	T2 *

Test article Dose		A/G
Ethyl Stearate	n	5
0 mg/kg	Mean	1.4
	S.D.	0.1
Ethyl Stearate	n	5
1000 mg/kg	Mean	1.3
	S.D.	0.1

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05, ** P<0.01

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.

Table 7 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	58	35	41	0	333	14.7	64	66	100	0.1
	S.D.	4	4	6	1	72	10.5	8	20	6	0.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	58	35	36	0	329	19.3	56	46	90	0.1
	S.D.	6	5	6	1	66	9.7	5	20	7	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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	149	18	0.28	143	4.6	107	10.1	5.2	5.9	3.0
	S.D.	18	3	0.05	1	0.3	2	0.2	0.3	0.2	0.2
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	143	18	0.30	143	4.5	108	9.8	5.1	5.7	3.0
	S.D.	25	1	0.03	0	0.2	0	0.1	0.3	0.1	0.1
								T2 **			

Test article Dose		A/G
Ethyl Stearate	n	5
0 mg/kg	Mean	1.1
	S.D.	0.0
Ethyl Stearate	n	5
1000 mg/kg	Mean	1.1
	S.D.	0.1

Significantly different from Ethyl Stearate 0 mg/kg : ** P<0.01

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.

Table 7 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	58	28	34	0	151	12.4	64	23	129	0.1
	S.D.	10	6	7	1	42	3.7	15	3	22	0.0
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	56	26	37	1	173	12.5	79	25	147	0.1
	S.D.	4	5	4	0	28	3.1	13	10	19	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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	136	17	0.33	142	4.1	110	10.2	4.2	6.3	3.7
	S.D.	6	4	0.04	1	0.3	1	0.2	0.5	0.4	0.3
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	137	18	0.34	143	3.9	110	10.1	4.6	6.3	3.5
	S.D.	14	2	0.02	1	0.2	1	0.2	0.8	0.2	0.2

Test article Dose		A/G
Ethyl Stearate	n	5
0 mg/kg	Mean	1.4
	S.D.	0.1
Ethyl Stearate	n	5
1000 mg/kg	Mean	1.3
	S.D.	0.1

Not significantly different from Ethyl Stearate 0 mg/kg

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

Table 8 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	7	7	7	7	7	7	7	7	7
0 mg/kg	Mean	556	2.16	0.39	13.5	2.4	19.1	3.5	312	56
	S.D.	19	0.03	0.02	1.9	0.4	1.8	0.3	92	15
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12
100 mg/kg	Mean	546	2.17	0.40	12.6	2.3	22.8	4.1	331	61
	S.D.	23	0.13	0.03	1.1	0.2	5.7	1.0	98	18
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	540	2.21	0.41	13.4	2.5	21.9	4.1	315	58
	S.D.	22	0.08	0.03	1.3	0.2	3.1	0.6	57	11
Ethyl Stearate	n	7	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	526	2.17	0.41	13.6	2.6	24.1	4.6	283	54
	S.D.	19	0.08	0.02	1.1	0.2	3.1	0.6	43	9
		DT *						DT *		

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
Ethyl Stearate	n	7	7	7	7	7	7	7	7	7	7
0 mg/kg	Mean	1.58	0.28	15.09	2.71	0.73	0.13	3.44	0.62	59	11
	S.D.	0.11	0.02	1.11	0.13	0.11	0.02	0.26	0.04	6	1
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12	12
100 mg/kg	Mean	1.54	0.28	13.78	2.52	0.73	0.13	3.35	0.62	61	11
	S.D.	0.12	0.02	1.07	0.15	0.07	0.01	0.23	0.05	7	1
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	1.54	0.29	13.48	2.49	0.75	0.14	3.44	0.64	62	12
	S.D.	0.13	0.02	1.53	0.21	0.09	0.01	0.21	0.04	7	1
				DT *	DT *						
Ethyl Stearate	n	7	7	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	1.48	0.28	13.00	2.47	0.74	0.14	3.54	0.67	61	12
	S.D.	0.08	0.02	0.96	0.17	0.13	0.03	0.26	0.04	12	2
				DT **	DT *				DT *		

AB : Absolute weight, RE : Relative weight by body weight

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05, ** P<0.01

DT : Dunnett test (two-side)

Table 8 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	7	7	7	7	7	7	7	7
0 mg/kg	Mean	3.42	0.62	1325	239	1.23	0.22	1.90	0.34
	S.D.	0.15	0.03	125	23	0.16	0.04	0.27	0.06
Ethyl Stearate	n	12	12	12	12	12	12	12	12
100 mg/kg	Mean	3.53	0.65	1338	246	1.31	0.24	1.88	0.35
	S.D.	0.20	0.05	80	21	0.25	0.04	0.22	0.04
Ethyl Stearate	n	12	12	12	12	12	12	12	12
300 mg/kg	Mean	3.51	0.65	1335	248	1.39	0.26	1.96	0.36
	S.D.	0.27	0.05	108	21	0.12	0.02	0.14	0.03
Ethyl Stearate	n	7	7	7	7	7	7	7	7
1000 mg/kg	Mean	3.29	0.62	1280	243	1.39	0.26	1.94	0.37
	S.D.	0.34	0.06	100	16	0.16	0.02	0.26	0.05

AB : Absolute weight, RE : Relative weight by body weight

Not significantly different from Ethyl Stearate 0 mg/kg

Table 8 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	11	11	11	11	11	11	11	11	11
0 mg/kg	Mean	308	1.95	0.63	16.9	5.5	16.7	5.4	224	72
	S.D.	22	0.09	0.03	2.0	0.7	4.0	1.0	76	22
Ethyl Stearate	n	11	11	11	11	11	11	11	11	11
100 mg/kg	Mean	306	1.91	0.63	16.4	5.4	15.9	5.2	195	64
	S.D.	14	0.08	0.04	1.5	0.6	1.8	0.5	50	16
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	307	1.96	0.64	16.0	5.2	17.1	5.6	199	65
	S.D.	11	0.08	0.02	2.5	0.8	2.7	0.7	35	13
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12
1000 mg/kg	Mean	305	1.95	0.64	17.3	5.7	16.1	5.3	227	74
	S.D.	19	0.04	0.04	1.7	0.4	2.5	0.8	51	17

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
Ethyl Stearate	n	11	11	11	11	11	11	11	11	11	11
0 mg/kg	Mean	1.01	0.33	9.73	3.16	0.69	0.22	2.12	0.69	71	23
	S.D.	0.12	0.02	0.98	0.22	0.15	0.04	0.24	0.06	15	4
Ethyl Stearate	n	11	11	11	11	11	11	11	11	11	11
100 mg/kg	Mean	1.00	0.33	9.52	3.11	0.59	0.19	2.05	0.67	66	22
	S.D.	0.06	0.02	0.64	0.18	0.06	0.02	0.17	0.06	10	3
							DT *				
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12	12
300 mg/kg	Mean	0.99	0.32	9.77	3.19	0.70	0.23	2.13	0.70	70	23
	S.D.	0.06	0.02	0.52	0.21	0.09	0.03	0.15	0.05	7	2
Ethyl Stearate	n	12	12	12	12	12	12	12	12	12	12
1000 mg/kg	Mean	0.99	0.32	9.56	3.13	0.66	0.22	1.98	0.65	70	23
	S.D.	0.07	0.02	1.03	0.30	0.09	0.03	0.17	0.05	13	3

AB : Absolute weight, RE : Relative weight by body weight

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

DT : Dunnett test (two-side)

Table 8 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Species : Rat

Test article		Ovary-RL		Uterus	
		AB	RE	AB	RE
Dose		mg	mg/100g	mg	mg/100g
Ethyl Stearate	n	11	11	11	11
0 mg/kg	Mean	102.6	33.3	750	244
	S.D.	9.4	2.8	80	21
Ethyl Stearate	n	11	11	11	11
100 mg/kg	Mean	101.5	33.2	724	237
	S.D.	15.7	5.5	67	21
Ethyl Stearate	n	12	12	12	12
300 mg/kg	Mean	97.7	31.8	681	222
	S.D.	10.9	3.0	55	15
					ST *
Ethyl Stearate	n	12	12	12	12
1000 mg/kg	Mean	107.6	35.4	747	245
	S.D.	16.8	6.0	141	47

AB : Absolute weight, RE : Relative weight by body weight

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

ST : Steel test (two-side)

Table 8 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	276	1.87	0.68	15.2	5.6	16.8	6.1	243	88
	S.D.	19	0.09	0.04	1.1	0.7	3.1	0.9	45	11
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	276	1.95	0.71	14.2	5.1	15.2	5.5	265	97
	S.D.	12	0.08	0.02	0.7	0.1	4.4	1.5	53	23

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	0.87	0.32	6.90	2.50	0.44	0.16	1.83	0.67	64	23
	S.D.	0.04	0.01	0.56	0.08	0.09	0.03	0.14	0.07	10	3
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	0.93	0.34	6.89	2.49	0.50	0.18	1.93	0.70	65	23
	S.D.	0.03	0.02	0.41	0.08	0.08	0.03	0.27	0.07	4	1
		T2 *									

Test article		Ovary-RL		Uterus	
		AB	RE	AB	RE
Dose		mg	mg/100g	mg	mg/100g
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	76.5	27.9	643	234
	S.D.	11.1	4.5	87	36
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	91.4	33.1	618	225
	S.D.	6.4	1.8	110	50
		T2 *	T2 *		

AB : Absolute weight, RE : Relative weight by body weight

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05

T2 : Student t-test (two-side)

Table 8 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	557	2.21	0.40	13.3	2.4	28.5	5.1	266	48
	S.D.	32	0.06	0.03	0.6	0.1	7.7	1.2	70	12
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	541	2.17	0.40	11.7	2.2	23.9	4.4	241	44
	S.D.	37	0.10	0.02	0.7	0.2	5.6	0.9	65	11
					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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	1.58	0.28	14.37	2.58	0.76	0.14	3.56	0.64	63	11
	S.D.	0.14	0.02	0.87	0.11	0.05	0.01	0.35	0.05	6	1
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	1.53	0.28	12.07	2.23	0.71	0.13	3.27	0.61	52	10
	S.D.	0.19	0.04	1.37	0.16	0.03	0.01	0.29	0.05	6	0
				T2 *	T2 **					T2 *	

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5
0 mg/kg	Mean	3.39	0.61	1347	242	1.54	0.28	1.85	0.33
	S.D.	0.46	0.10	132	28	0.22	0.04	0.27	0.05
Ethyl Stearate	n	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	3.42	0.64	1386	256	1.22	0.23	1.68	0.31
	S.D.	0.09	0.04	148	23	0.19	0.03	0.14	0.04
						T2 *			

AB : Absolute weight, RE : Relative weight by body weight

Significantly different from Ethyl Stearate 0 mg/kg : * P<0.05, ** P<0.01

T2 : Student t-test (two-side)

Table 8 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	273	1.99	0.73	15.1	5.5	17.4	6.4	194	72
	S.D.	22	0.10	0.04	1.6	0.2	1.3	0.7	74	32
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	274	1.96	0.72	15.8	5.8	19.5	7.1	265	96
	S.D.	11	0.13	0.07	1.1	0.5	3.3	1.3	73	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
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
0 mg/kg	Mean	0.93	0.34	6.78	2.47	0.44	0.16	1.91	0.70	64	24
	S.D.	0.11	0.02	0.86	0.11	0.04	0.02	0.17	0.03	13	6
Ethyl Stearate	n	5	5	5	5	5	5	5	5	5	5
1000 mg/kg	Mean	0.89	0.32	6.70	2.45	0.46	0.17	1.82	0.67	60	22
	S.D.	0.06	0.03	0.27	0.13	0.07	0.03	0.02	0.03	10	4

Test article		Ovary-RL		Uterus	
		AB	RE	AB	RE
Dose		mg	mg/100g	mg	mg/100g
Ethyl Stearate	n	5	5	5	5
0 mg/kg	Mean	85.7	31.4	549	201
	S.D.	13.8	4.7	136	49
Ethyl Stearate	n	5	5	5	5
1000 mg/kg	Mean	85.6	31.3	589	216
	S.D.	13.2	5.2	93	41

AB : Absolute weight, RE : Relative weight by body weight

Not significantly different from Ethyl Stearate 0 mg/kg

Study No. : R-1191

Table 9-1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Lung(bronchus)					
Focus,dark red		0	1	0	0
Stomach					
Focus,dark red,glandular stomach		2	0	0	0

M : Male

Study No. : R-1191

Table 9-2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Ovary			
Cyst		1	0
Stomach			
Focus,dark red,glandular stomach		2	0
Uterus			
Aplasia		1	0

F : Female

Study No. : R-1191

Table 9-3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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	12
Liver					
Hepatodiaphragmatic nodule		0	1	0	0
Stomach					
Focus,white		0	0	1	0
Focus,dark red,glandular stomach		1	0	0	1
Skin+Subcutis					
Nodule		1	0	0	0

F : Female

Study No. : R-1191

Table 9-4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Gross pathological findings (End of recovery period)

Species : Rat

Organs	Sex:	M	M
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Kidney			
Focus,depressed		1	0

M : Male

Study No. : R-1191

Table 9-5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Gross pathological findings (End of recovery period)

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Liver			
Hepatodiaphragmatic nodule		0	1
Stomach			
Focus,dark red,glandular stomach		0	1

F : Female

Study No. : R-1191

Table 9-6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Gross pathological findings (Undelivered)

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	100
Findings	Number:	1	1
All tissues			
Not remarkable		1	1

F : Female

Study No. : R-1191

Table 10-1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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	5
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		5	1	0	5

M : Male

Study No. : R-1191

Table 10-2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Lung(bronchus)					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Aggregation,alveolar macrophage		0	0	0	1
minimal		0	0	0	1
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
Optic nerve					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Pancreas					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Fibrosis,islet		0	0	0	1
mild		0	0	0	1
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,pars distalis		0	0	0	1
minimal		0	0	0	1
Prostate					
Number examined		5	1	0	5
Cell infiltration		5	1	0	5
minimal		2	1	0	4
mild		3	0	0	1
Salivary gland,sublingual					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
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

M : Male

Study No. : R-1191

Table 10-3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Skeletal muscle,femoral					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Skin,inguinal					
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
Spleen					
Number examined		5	1	0	5
Not remarkable		5	1	0	5
Stomach					
Number examined		5	1	0	5
Not remarkable		3	1	0	5
Erosion/Ulcer,glandular stomach		2	0	0	0
minimal		2	0	0	0
Testis					
Number examined		5	1	0	5
Not remarkable		5	1	0	4
Atrophy,seminiferous tubular		0	0	0	1
minimal		0	0	0	1
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	5
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

Study No. : R-1191

Table 10-4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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		5	5
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		5	5
Liver			
Number examined		5	5
Not remarkable		5	4
Microgranuloma		0	1
minimal		0	1
Lung(bronchus)			
Number examined		5	5
Not remarkable		5	5

F : Female

Study No. : R-1191

Table 10-5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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
Optic nerve			
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,sublingual			
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
Skin,inguinal			
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

F : Female

Study No. : R-1191

Table 10-6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Histopathological findings (End of administration period (D42))

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	1000
	Number:	5	5
Stomach			
Number examined		5	5
Not remarkable		3	5
Erosion/Ulcer,glandular stomach		2	0
minimal		2	0
Thymus			
Number examined		5	5
Not remarkable		5	5
Thyroid			
Number examined		5	5
Not remarkable		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

Study No. : R-1191

Table 10-7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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	12
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		4	0	0	5
Microgranuloma		1	0	0	0
minimal		1	0	0	0
Lung(bronchus)					
Number examined		5	0	0	5
Not remarkable		4	0	0	5
Aggregation,alveolar macrophage		1	0	0	0
minimal		1	0	0	0

F : Female

Table 10-8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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	12
Lymph node,mesenteric					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
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
Optic nerve					
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		4	0	0	5
Basophilic focus,acinar cell		1	0	0	0
minimal		1	0	0	0
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,sublingual					
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
Skin,inguinal					
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

F : Female

Study No. : R-1191

Table 10-9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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	12
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		5	0	0	5
Trachea					
Number examined		5	0	0	5
Not remarkable		5	0	0	5
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
Mammary gland,perineal					
Number examined		1	0	0	0
ADENOCARCINOMA		1	0	0	0
present		1	0	0	0

F : Female

Study No. : R-1191

Table 10-10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (End of recovery period)

Species : Rat

Organs	Sex:	M	M
	Dose(mg/kg):	0	1000
Findings	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
Epididymis			
Number examined		5	5
Not remarkable		5	4
Granuloma,spermatic		0	1
mild		0	1
Eye			
Number examined		5	5
Not remarkable		5	5
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	4
Basophilia,tubular		0	1
minimal		0	1
Urinary cast,hyaline		1	0
minimal		1	0
Fibrosis,focal		1	0
mild		1	0

M : Male

Study No. : R-1191

Table 10-11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (End of recovery period)

Species : Rat

Organs / Findings	Sex:	M	M
	Dose(mg/kg):	0	1000
	Number:	5	5
Liver			
Number examined		5	5
Not remarkable		4	3
Microgranuloma		1	2
minimal		1	2
Lung(bronchus)			
Number examined		5	5
Not remarkable		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
Optic nerve			
Number examined		5	5
Not remarkable		5	5
Pancreas			
Number examined		5	5
Not remarkable		4	5
Atrophy,acinar,focal		1	0
minimal		1	0
Parathyroid			
Number examined		5	5
Not remarkable		5	5
Pituitary			
Number examined		5	5
Not remarkable		5	5
Prostate			
Number examined		5	5
Not remarkable		4	2
Cell infiltration		1	3
minimal		1	2
mild		0	1
Salivary gland,sublingual			
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

M : Male

Study No. : R-1191

Table 10-12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Histopathological findings (End of recovery period)

Species : Rat

Organs	Sex:	M	M
	Dose(mg/kg):	0	1000
Findings	Number:	5	5
Seminal vesicle(coagulating gland)			
Number examined		5	5
Not remarkable		5	5
Skeletal muscle,femoral			
Number examined		5	5
Not remarkable		5	5
Skin,inguinal			
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		5	5
Testis			
Number examined		5	5
Not remarkable		4	5
Atrophy,seminiferous tubular		1	0
minimal		1	0
Thymus			
Number examined		5	5
Not remarkable		5	5
Thyroid			
Number examined		5	5
Not remarkable		5	5
Trachea			
Number examined		5	5
Not remarkable		5	5
Urinary bladder			
Number examined		5	5
Not remarkable		5	5

M : Male

Study No. : R-1191

Table 10-13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (End of recovery period)

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		5	5
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		5	5
Liver			
Number examined		5	5
Not remarkable		4	3
Hepatodiaphragmatic nodule		0	1
mild		0	1
Microgranuloma		1	1
minimal		1	1

F : Female

Study No. : R-1191

Table 10-14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (End of recovery period)

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	1000
	Number:	5	5
Lung(bronchus)			
Number examined		5	5
Not remarkable		5	4
Aggregation,alveolar macrophage		0	1
minimal		0	1
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
Optic nerve			
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		4	4
Cyst,pars distalis		1	1
minimal		1	1
Salivary gland,sublingual			
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
Skin,inguinal			
Number examined		5	5
Not remarkable		5	5

F : Female

Study No. : R-1191

Table 10-15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (End of recovery period)

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	1000
Findings	Number:	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		5	4
Erosion/Ulcer,glandular stomach		0	1
minimal		0	1
Thymus			
Number examined		5	5
Not remarkable		5	5
Thyroid			
Number examined		5	5
Not remarkable		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

Study No. : R-1191

Table 10-16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (Undelivered)

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	100
	Number:	1	1
Adrenal			
Number examined		1	1
Not remarkable		1	1
Bone+Bone marrow,femoral			
Number examined		1	1
Not remarkable		1	1
Cerebellum(pons)			
Number examined		1	1
Not remarkable		1	1
Cerebrum			
Number examined		1	1
Not remarkable		1	1
Eye			
Number examined		1	1
Not remarkable		1	1
Heart			
Number examined		1	1
Not remarkable		1	1
Intestine,duodenum			
Number examined		1	1
Not remarkable		1	1
Intestine,jejunum			
Number examined		1	1
Not remarkable		1	1
Intestine,ileum(Peyer's patch)			
Number examined		1	1
Not remarkable		1	1
Intestine,cecum			
Number examined		1	1
Not remarkable		1	1
Intestine,colon			
Number examined		1	1
Not remarkable		1	1
Intestine,rectum			
Number examined		1	1
Not remarkable		1	1
Kidney			
Number examined		1	1
Not remarkable		1	1
Liver			
Number examined		1	1
Not remarkable		1	1
Lung(bronchus)			
Number examined		1	1
Not remarkable		1	1

F : Female

Study No. : R-1191

Table 10-17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Histopathological findings (Undelivered)

Species : Rat

Organs / Findings	Sex:	F	F
	Dose(mg/kg):	0	100
	Number:	1	1
Lymph node,mesenteric			
Number examined		1	1
Not remarkable		1	1
Lymph node,submandibular			
Number examined		1	1
Not remarkable		1	1
Mammary gland,inguinal			
Number examined		1	1
Not remarkable		1	1
Optic nerve			
Number examined		1	1
Not remarkable		1	1
Ovary			
Number examined		1	1
Not remarkable		1	1
Pancreas			
Number examined		1	1
Not remarkable		1	1
Parathyroid			
Number examined		1	1
Not remarkable		1	1
Pituitary			
Number examined		1	1
Not remarkable		1	1
Salivary gland,sublingual			
Number examined		1	1
Not remarkable		1	1
Salivary gland,submandibular			
Number examined		1	1
Not remarkable		1	1
Sciatic nerve			
Number examined		1	1
Not remarkable		1	1
Skeletal muscle,femoral			
Number examined		1	1
Not remarkable		1	1
Skin,inguinal			
Number examined		1	1
Not remarkable		1	1
Spinal cord,thoracic			
Number examined		1	1
Not remarkable		1	1
Spleen			
Number examined		1	1
Not remarkable		1	1

F : Female

Study No. : R-1191

Table 10-18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
Histopathological findings (Undelivered)

Species : Rat

Organs	Sex:	F	F
	Dose(mg/kg):	0	100
Findings	Number:	1	1
Stomach			
Number examined		1	1
Not remarkable		1	1
Thymus			
Number examined		1	1
Not remarkable		1	1
Thyroid			
Number examined		1	1
Not remarkable		1	1
Trachea			
Number examined		1	1
Not remarkable		1	1
Urinary bladder			
Number examined		1	1
Not remarkable		1	1
Uterus			
Number examined		1	1
Not remarkable		1	1
Vagina			
Number examined		1	1
Not remarkable		1	1

F : Female

Table 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles

Generation : F0

Study No. : R-1191

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 (%)
Ethyl Stearate 0 mg/kg	n	12	12	12 (2)	16.7
	Mean	4.2	3.6		
	S.D.	0.4	0.5		
Ethyl Stearate 100 mg/kg	n	12	12	12 (1)	8.3
	Mean	4.1	3.7		
	S.D.	0.2	0.5		
Ethyl Stearate 300 mg/kg	n	12	12	12 (1)	8.3
	Mean	4.1	3.8		
	S.D.	0.2	0.5		
Ethyl Stearate 1000 mg/kg	n	12	12	12 (0)	0.0
	Mean	4.2	3.5		
	S.D.	0.3	0.5		

() : Values in brackets represent number of animals with abnormal estrous cycle.

Abnormal estrous cycle index = (Number of animals with abnormal estrous cycle / Number of animals examined)×100

Not significantly different from Ethyl Stearate 0 mg/kg

Table 12 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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)
Ethyl Stearate	n	12	11	(11/12)	(11/11)
0 mg/kg	Mean		2.1	91.7	100.0
	S.D.		0.8		
Ethyl Stearate	n	12	11	(11/12)	(11/11)
100 mg/kg	Mean		2.7	91.7	100.0
	S.D.		2.1		
Ethyl Stearate	n	12	12	(12/12)	(12/12)
300 mg/kg	Mean		2.3	100.0	100.0
	S.D.		1.1		
Ethyl Stearate	n	12	12	(12/12)	(12/12)
1000 mg/kg	Mean		2.2	100.0	100.0
	S.D.		1.0		

Not significantly different from Ethyl Stearate 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

Table 12 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

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)
Ethyl Stearate	n	12	11	(11/12)	(11/11)
0 mg/kg	Mean		2.1	91.7	100.0
	S.D.		0.8		
Ethyl Stearate	n	12	11	(11/12)	(11/11)
100 mg/kg	Mean		2.7	91.7	100.0
	S.D.		2.1		
Ethyl Stearate	n	12	12	(12/12)	(12/12)
300 mg/kg	Mean		2.3	100.0	100.0
	S.D.		1.1		
Ethyl Stearate	n	12	12	(12/12)	(12/12)
1000 mg/kg	Mean		2.2	100.0	100.0
	S.D.		1.0		

Not significantly different from Ethyl Stearate 0 mg/kg

a): (Number of copulated animals / Number of mated animals)×100

b): (Number of pregnant females / Number of copulated females)×100

Table 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

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
Ethyl Stearate	n	11	11/11	11	11	11	11	11	11	11	11	11	11	70/159	70/159	11
0 mg/kg	Mean	21.9	100.0	16.0	15.5	3.1	96.9	92.7	100.0	14.5	6.4	8.1	14.5	44.0	44.0	0.0
	S.D.	0.4		1.6	2.0	5.6	5.6	9.8	0.0	2.7	1.9	3.2	2.7			0.0
Ethyl Stearate	n	11	11/11	11	11	11	11	11	11	11	11	11	11	67/146	67/146	11
100 mg/kg	Mean	22.0	100.0	14.6	13.9	4.8	95.3	95.7	100.0	13.3	6.1	7.2	13.3	45.9	45.9	0.0
	S.D.	0.4		2.4	2.2	3.1	3.1	4.7	0.0	2.1	2.5	2.0	2.1			0.0
			EF													
Ethyl Stearate	n	12	12/12	12	12	12	12	12	12	12	12	12	12	86/178	86/178	12
300 mg/kg	Mean	21.9	100.0	15.9	15.2	4.4	95.6	97.8	100.0	14.8	7.2	7.7	14.8	48.3	48.3	0.0
	S.D.	0.4		1.7	1.3	5.0	5.0	4.3	0.0	1.4	1.0	1.7	1.4			0.0
			EF													
Ethyl Stearate	n	12	12/12	12	12	12	12	12	12	12	12	12	12	88/177	88/178	12
1000 mg/kg	Mean	22.0	100.0	16.6	15.4	7.2	92.8	96.0	99.5	14.8	7.3	7.4	14.8	49.7	49.4	0.1
	S.D.	0.3		1.1	1.6	4.5	4.5	4.5	1.8	1.9	2.7	2.8	1.9			0.3
			EF													

M : Male, F : Female

Not significantly different from Ethyl Stearate 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

Table 14 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

External examination of offspring

Generation : F0

Study No. : R-1191

Days after birth : 0

Species : Rat

Test article	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	12
Number of offspring	159	146	178	178
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 Ethyl Stearate 0 mg/kg

a) : (Number of offspring with any anomaly / Number of offspring) x 100

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

Table 14 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
External examination of offspring
Generation : F0

Study No. : R-1191
Days after birth : 4
Species : Rat

Test article	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	12
Number of offspring	155	145	177	174
Number of offspring with any anomaly	0	0	0	0

Table 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

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	 Day 4	Viability index (%)a)	Sex ratio (%)b)
Ethyl Stearate	n	11	11	11	69/155
0 mg/kg	Mean	14.5	14.1	97.7	44.5
	S.D.	2.7	2.5	3.3	
Ethyl Stearate	n	11	11	11	66/145
100 mg/kg	Mean	13.3	13.2	99.4	45.5
	S.D.	2.1	2.0	2.0	
Ethyl Stearate	n	12	12	12	86/177
300 mg/kg	Mean	14.8	14.8	99.4	48.6
	S.D.	1.4	1.5	2.0	
Ethyl Stearate	n	12	12	12	86/174
1000 mg/kg	Mean	14.8	14.5	98.4	49.4
	S.D.	1.9	1.8	3.7	

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 Ethyl Stearate 0 mg/kg

Table 16 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight of offspring

Generation : F0 Unit : g Species : Rat

Test article			/Days after birth	
Dose			0	4/Pre-culled
Ethyl Stearate	Male	n	11	11
0 mg/kg		Mean	6.4	10.0
		S.D.	0.5	1.0
	Female	n	11	11
		Mean	6.0	9.5
		S.D.	0.4	0.9
Ethyl Stearate	Male	n	11	11
100 mg/kg		Mean	6.6	10.4
		S.D.	0.4	1.1
	Female	n	11	11
		Mean	6.2	9.9
		S.D.	0.4	0.9
Ethyl Stearate	Male	n	12	12
300 mg/kg		Mean	6.4	10.2
		S.D.	0.4	0.7
	Female	n	12	12
		Mean	6.2	9.9
		S.D.	0.4	0.6
Ethyl Stearate	Male	n	12	12
1000 mg/kg		Mean	6.5	10.3
		S.D.	0.4	0.7
	Female	n	12	12
		Mean	6.3	9.9
		S.D.	0.5	0.8

Not significantly different from Ethyl Stearate 0 mg/kg

Table 16 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight gain of offspring

Generation : F0 Base : Day 4 after birth

Unit : g Species : Rat

Test article Dose			/Days after birth /Before culling 0-4
Ethyl Stearate 0 mg/kg	Male	n	11
		Mean	3.6
		S.D.	0.7
	Female	n	11
		Mean	3.5
		S.D.	0.6
Ethyl Stearate 100 mg/kg	Male	n	11
		Mean	3.8
		S.D.	1.0
	Female	n	11
		Mean	3.7
		S.D.	0.8
Ethyl Stearate 300 mg/kg	Male	n	12
		Mean	3.8
		S.D.	0.4
	Female	n	12
		Mean	3.7
		S.D.	0.3
Ethyl Stearate 1000 mg/kg	Male	n	12
		Mean	3.8
		S.D.	0.5
	Female	n	12
		Mean	3.6
		S.D.	0.5

Not significantly different from Ethyl Stearate 0 mg/kg

Table 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats
External examination of dead offspring
Generation : F0

Study No. : R-1191

Species : Rat

Test article	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate	Ethyl Stearate
Dose	0 mg/kg	100 mg/kg	300 mg/kg	1000 mg/kg
Number of dams	11	11	12	12
Number of offspring	2	1	0	3
Number of offspring with any anomaly	0	0	0	0

Study No.: R-1191

Appendix 1-1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs

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

Sex : Male

Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs

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

Sex : Male

Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

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

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 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
1101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
1103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
1104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
1107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
1108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
1111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
1112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	

- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.
Animal No. 1110 : Not copulated

Study No.: R-1191

Appendix 1-18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 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
2101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
2102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
2103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
2107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
2109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
2110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
2112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	

- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.
Animal No. 2111 : Not copulated

Study No.: R-1191

Appendix 1-19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 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
3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
3102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
3107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
3108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
3111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d	
3112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d

- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.

Study No.: R-1191

Appendix 1-20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 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
4101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d
4103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
4106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d	
4111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	d
4112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/d

- : No abnormal findings
d : Delivery
/d : Found delivery after the observation of general conditions.

Study No.: R-1191

Appendix 1-21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
1101	-	-	-	-	-	-
1102	-	-	-	-	-	-
1103	-	-	-	-	-	-
1104	-	-	-	-	-	-
1105	-	-	-	-	-	-
1106	-	-	-	-	-	-
1107	-	-	-	-	-	-
1108	-	-	-	-	-	-
1109	-	-	-	-	-	-
1111	-	-	-	-	-	-
1112	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings
Animal No. 1110 : Not copulated

Study No.: R-1191

Appendix 1-22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
2101	-	-	-	-	-	-
2102	-	-	-	-	-	-
2103	-	-	-	-	-	-
2104	-	-	-	-	-	-
2105	-	-	-	-	-	-
2106	-	-	-	-	-	-
2107	-	-	-	-	-	-
2108	-	-	-	-	-	-
2109	-	-	-	-	-	-
2110	-	-	-	-	-	-
2112	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings
Animal No. 2111 : Not copulated

Study No.: R-1191

Appendix 1-23 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs

Period : F0 lactation Day 0-5

Sex : Female

Dose : Ethyl Stearate 1000 mg/kg

Species : Rat

Animal No.	/Day 0	1	2	3	4	5a)
4101	-	-	-	-	-	-
4102	-	-	-	-	-	-
4103	-	-	-	-	-	-
4104	-	-	-	-	-	-
4105	-	-	-	-	-	-
4106	-	-	-	-	-	-
4107	-	-	-	-	-	-
4108	-	-	-	-	-	-
4109	-	-	-	-	-	-
4110	-	-	-	-	-	-
4111	-	-	-	-	-	-
4112	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-25 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-26 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-27 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-28 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-29 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- : No abnormal findings

Study No.: R-1191

Appendix 1-30 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Administration Day 1-43

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-31 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-32 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-33 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Study No.: R-1191

Appendix 1-34 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Clinical signs Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

a) : Day of necropsy
- : No abnormal findings

Appendix 2 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Appendix 2 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Appendix 2 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Appendix 2 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Appendix 2 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Appendix 2 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Appendix 2 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Appendix 2 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Appendix 2 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Appendix 2 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Appendix 2 - 23 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Appendix 2 - 24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Appendix 2 - 25 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 26 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 27 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 28 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 29 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 31 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 32 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 33 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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
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. 1110 : Not copulated

Appendix 2 - 34 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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
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, 2: Severe
Animal No. 2111 : Not copulated

Appendix 2 - 35 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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

Appendix 2 - 36 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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

Appendix 2 - 37 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
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. 1110 : Not copulated

Appendix 2 - 38 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
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, 2: Severe
Animal No. 2111 : Not copulated

Appendix 2 - 39 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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

Appendix 2 - 40 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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

Appendix 2 - 41 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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. 1110 : Not copulated

Appendix 2 - 42 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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, 2: Severe
Animal No. 2111 : Not copulated

Appendix 2 - 43 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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

Appendix 2 - 44 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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

Appendix 2 - 45 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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. 1110 : Not copulated

Appendix 2 - 46 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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, 2: Severe
Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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

Appendix 2 - 48 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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

Appendix 2 - 49 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
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. 1110 : Not copulated

Appendix 2 - 50 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
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, 2: Severe
Animal No. 2111 : Not copulated

Appendix 2 - 51 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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

Appendix 2 - 52 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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

Appendix 2 - 53 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 54 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 55 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 56 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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

Appendix 2 - 58 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 60 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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

Appendix 2 - 61 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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

Appendix 2 - 62 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Appendix 2 - 64 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 66 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 68 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 69 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Home cage observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Appendix 2 - 71 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Appendix 2 - 72 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Home cage observation Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 1 Period : F0 before mating Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 1 Period : F0 before mating Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 3 Period : F0 mating Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 4 Period : F0 mating Dose : Ethyl Stearate 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	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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	1	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	1	1
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Male Week : 6 Period : F0 mating Dose : Ethyl Stearate 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	1	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	1	1
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Female Week : 1 Period : F0 before mating Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	1	1
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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
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	1	1
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
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, 2: Very Awkward
Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Female Day : 1 Period : F0 gestation Dose : Ethyl Stearate 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
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
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	1	0
2108	0	0	0	0	0	0
2109	0	0	0	0	0	0
2110	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, 2: Very Awkward
Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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	1	0
3110	0	0	0	0	0	0
3111	0	0	0	0	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
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
1109	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, 2: Very Awkward
Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
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
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
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, 2: Very Awkward
Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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
1109	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, 2: Very Awkward
Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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
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
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, 2: Very Awkward
Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Female Day : 14 Period : F0 gestation Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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
1109	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, 2: Very Awkward
Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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
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
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, 2: Very Awkward
Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Female Day : 20 Period : F0 gestation Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
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
1109	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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
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
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
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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	1	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

In-the-hand observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Ease of removal 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	2	1
1002	7	0
1003	4	3
1004	5	1
1005	7	0
1006	4	0
1007	5	0
1008	3	0
1009	4	1
1010	3	0
1011	3	0
1012	7	0
n	12	12
Mean	5	1
S.D.	2	1

Open field observation Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	1	1
2002	5	0
2003	2	0
2004	7	0
2005	4	0
2006	4	0
2007	6	0
2008	2	0
2009	2	0
2010	4	0
2011	5	0
2012	5	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	7	0
3002	4	0
3003	3	1
3004	4	3
3005	6	0
3006	4	0
3007	3	0
3008	4	0
3009	6	0
3010	4	0
3011	6	0
3012	3	0
n	12	12
Mean	5	0
S.D.	1	1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	6	0
4002	4	0
4003	5	0
4004	6	0
4005	7	0
4006	7	0
4007	7	0
4008	8	0
4009	5	0
4010	2	0
4011	9	0
4012	4	0
n	12	12
Mean	6	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1001	0	0	0	0	0	N	0	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	3	0
1002	3	0
1003	3	0
1004	4	0
1005	5	0
1006	5	0
1007	3	0
1008	8	0
1009	4	0
1010	4	0
1011	4	0
1012	5	0
n	12	12
Mean	4	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	1
2003	0	0	0	0	0	N	0	0
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	5	1
2002	3	0
2003	6	0
2004	6	0
2005	3	0
2006	4	0
2007	6	0
2008	5	0
2009	4	0
2010	6	0
2011	3	0
2012	6	0
n	12	12
Mean	5	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	1
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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	4	0
3002	3	0
3003	3	0
3004	4	1
3005	4	0
3006	4	0
3007	4	0
3008	2	0
3009	5	0
3010	3	0
3011	4	0
3012	4	0
n	12	12
Mean	4	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	5	0
4002	3	0
4003	2	3
4004	3	0
4005	5	0
4006	4	0
4007	6	0
4008	10	0
4009	4	0
4010	3	0
4011	5	0
4012	5	0
n	12	12
Mean	5	0
S.D.	2	1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	0	0
1002	4	0
1003	2	0
1004	6	0
1005	6	0
1006	4	0
1007	1	0
1008	8	0
1009	1	0
1010	5	0
1011	4	0
1012	5	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	4	0
2002	4	0
2003	1	0
2004	3	0
2005	3	0
2006	6	0
2007	4	0
2008	3	0
2009	1	0
2010	3	0
2011	3	0
2012	4	0
n	12	12
Mean	3	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	3	2
3002	2	0
3003	2	0
3004	3	2
3005	2	0
3006	3	0
3007	5	0
3008	2	0
3009	5	0
3010	3	0
3011	1	0
3012	4	0
n	12	12
Mean	3	0
S.D.	1	1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 3 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	8	0
4002	2	0
4003	5	0
4004	5	0
4005	1	0
4006	0	0
4007	2	0
4008	7	0
4009	8	0
4010	2	0
4011	5	0
4012	5	0
n	12	12
Mean	4	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	2	0
1002	4	0
1003	5	0
1004	3	0
1005	7	0
1006	1	1
1007	5	0
1008	7	0
1009	3	1
1010	5	0
1011	5	0
1012	6	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	4	0
2002	6	0
2003	5	0
2004	4	0
2005	6	0
2006	5	0
2007	5	0
2008	5	0
2009	4	0
2010	8	0
2011	3	0
2012	5	0
n	12	12
Mean	5	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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	1
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	1
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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	7	0
3002	3	0
3003	5	0
3004	4	0
3005	5	0
3006	5	0
3007	4	0
3008	4	0
3009	5	0
3010	1	0
3011	3	0
3012	5	0
n	12	12
Mean	4	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 4 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	4	0
4002	6	0
4003	4	1
4004	5	0
4005	3	0
4006	3	0
4007	2	0
4008	5	0
4009	5	0
4010	3	0
4011	7	0
4012	5	0
n	12	12
Mean	4	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	2	0
1002	6	0
1003	5	0
1004	5	0
1005	5	0
1006	2	0
1007	4	0
1008	4	0
1009	3	0
1010	4	0
1011	5	0
1012	7	0
n	12	12
Mean	4	0
S.D.	1	0

Open field observation Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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	1
2007	0	0	0	0	0	N	0	1
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	3	0
2002	7	0
2003	5	0
2004	7	0
2005	5	2
2006	5	0
2007	4	0
2008	2	0
2009	2	2
2010	6	0
2011	4	0
2012	4	0
n	12	12
Mean	5	0
S.D.	2	1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	2	0
3002	3	0
3003	5	0
3004	4	0
3005	1	0
3006	2	0
3007	3	0
3008	5	0
3009	3	0
3010	3	0
3011	3	0
3012	2	0
n	12	12
Mean	3	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 5 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	3	0
4002	3	0
4003	4	0
4004	6	0
4005	6	0
4006	3	0
4007	2	0
4008	6	0
4009	4	0
4010	2	0
4011	6	0
4012	4	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	1
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1001	3	0
1002	4	0
1003	4	0
1004	3	0
1005	4	0
1006	2	0
1007	3	0
1008	7	0
1009	5	0
1010	5	0
1011	5	0
1012	7	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2001	5	0
2002	6	0
2003	7	0
2004	5	0
2005	5	0
2006	3	0
2007	3	0
2008	4	0
2009	5	0
2010	5	0
2011	5	0
2012	7	0
n	12	12
Mean	5	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3001	2	0
3002	4	0
3003	4	0
3004	6	0
3005	3	0
3006	6	0
3007	6	0
3008	1	0
3009	3	0
3010	0	0
3011	2	0
3012	5	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4001	5	0
4002	3	0
4003	2	0
4004	4	0
4005	1	0
4006	2	0
4007	3	0
4008	8	0
4009	7	0
4010	2	0
4011	5	0
4012	3	0
n	12	12
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	6	0
1102	8	0
1103	6	0
1104	8	0
1105	6	0
1106	3	0
1107	4	0
1108	6	0
1109	6	0
1110	11	0
1111	7	0
1112	7	0
n	12	12
Mean	7	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	5	0
2102	7	0
2103	6	0
2104	7	0
2105	4	0
2106	6	0
2107	7	0
2108	10	0
2109	5	0
2110	5	0
2111	5	0
2112	4	0
n	12	12
Mean	6	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	9	0
3102	7	0
3103	6	0
3104	6	0
3105	9	0
3106	9	0
3107	6	0
3108	5	0
3109	4	0
3110	6	0
3111	8	0
3112	9	0
n	12	12
Mean	7	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	6	0
4102	6	0
4103	5	0
4104	6	0
4105	8	0
4106	9	0
4107	3	0
4108	4	0
4109	7	0
4110	8	0
4111	4	0
4112	12	0
n	12	12
Mean	7	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	8	0
1102	7	0
1103	6	0
1104	10	0
1105	2	0
1106	6	0
1107	6	0
1108	8	0
1109	9	0
1110	6	0
1111	4	0
1112	10	0
n	12	12
Mean	7	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	8	0
2102	7	0
2103	7	0
2104	6	0
2105	4	0
2106	6	0
2107	6	0
2108	9	0
2109	7	0
2110	4	0
2111	6	0
2112	6	0
n	12	12
Mean	6	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	11	0
3102	9	0
3103	8	0
3104	8	0
3105	13	0
3106	8	0
3107	7	0
3108	7	0
3109	6	0
3110	5	0
3111	7	0
3112	12	0
n	12	12
Mean	8	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 before mating

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	8	0
4102	7	0
4103	7	0
4104	8	0
4105	10	0
4106	5	0
4107	7	0
4108	9	0
4109	7	0
4110	6	0
4111	5	0
4112	7	0
n	12	12
Mean	7	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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
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: Sevear
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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	7	0
1102	6	0
1103	4	0
1104	7	0
1105	9	0
1106	10	0
1107	4	0
1108	9	0
1109	3	0
1111	3	0
1112	5	0
n	11	11
Mean	6	0
S.D.	3	0

Animal No. 1110 : Not copulated

Appendix 2 - 211 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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
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: Sevear
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	6	0
2102	5	0
2103	7	0
2104	5	0
2105	5	0
2106	3	0
2107	5	0
2108	7	0
2109	4	0
2110	5	0
2112	3	0
n	11	11
Mean	5	0
S.D.	1	0

Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	11	0
3102	8	0
3103	6	0
3104	9	0
3105	9	0
3106	2	0
3107	7	0
3108	5	0
3109	6	0
3110	5	0
3111	9	0
3112	8	0
n	12	12
Mean	7	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	8	0
4102	6	0
4103	9	0
4104	7	0
4105	8	0
4106	5	0
4107	6	0
4108	6	0
4109	7	0
4110	4	0
4111	7	0
4112	8	0
n	12	12
Mean	7	0
S.D.	1	0

Appendix 2 - 217 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
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: Sevear
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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	6	0
1102	6	0
1103	5	0
1104	7	0
1105	5	0
1106	7	0
1107	4	0
1108	9	0
1109	5	0
1111	6	0
1112	5	0
n	11	11
Mean	6	0
S.D.	1	0

Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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
2112	0	0	0	0	0	N	0	1
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: Sevear
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	7	0
2102	6	0
2103	8	0
2104	5	0
2105	4	0
2106	4	0
2107	7	0
2108	8	0
2109	6	0
2110	5	0
2112	4	0
n	11	11
Mean	6	0
S.D.	2	0

Animal No. 2111 : Not copulated

Appendix 2 - 221 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	12	0
3102	8	0
3103	7	0
3104	8	0
3105	11	0
3106	5	0
3107	7	0
3108	4	0
3109	5	0
3110	3	0
3111	7	0
3112	7	0
n	12	12
Mean	7	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 7 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	6	0
4102	8	0
4103	9	0
4104	7	0
4105	5	0
4106	3	0
4107	3	0
4108	5	0
4109	3	0
4110	7	0
4111	5	0
4112	8	0
n	12	12
Mean	6	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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: Sevear
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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	3	0
1102	8	0
1103	4	0
1104	5	0
1105	4	0
1106	7	0
1107	4	0
1108	7	0
1109	4	0
1111	7	0
1112	8	0
n	11	11
Mean	6	0
S.D.	2	0

Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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
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: Sevear
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	3	0
2102	5	0
2103	6	0
2104	8	0
2105	3	0
2106	7	0
2107	5	0
2108	7	0
2109	4	0
2110	4	0
2112	5	0
n	11	11
Mean	5	0
S.D.	2	0

Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	5	0
3102	10	0
3103	4	0
3104	10	0
3105	9	0
3106	6	0
3107	7	0
3108	3	0
3109	4	0
3110	2	0
3111	4	0
3112	8	0
n	12	12
Mean	6	0
S.D.	3	0

Appendix 2 - 231 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 14 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	5	0
4102	6	0
4103	7	0
4104	6	0
4105	6	0
4106	6	0
4107	4	0
4108	6	0
4109	3	0
4110	5	0
4111	3	0
4112	6	0
n	12	12
Mean	5	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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: Sevear
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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	4	0
1102	7	0
1103	3	0
1104	4	0
1105	3	0
1106	6	0
1107	5	0
1108	5	0
1109	4	0
1111	4	0
1112	5	0
n	11	11
Mean	5	0
S.D.	1	0

Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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
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: Sevear
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	3	0
2102	3	0
2103	3	0
2104	2	0
2105	3	0
2106	3	0
2107	1	0
2108	5	0
2109	6	0
2110	4	0
2112	6	0
n	11	11
Mean	4	0
S.D.	2	0

Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	4	0
3102	5	0
3103	5	0
3104	6	0
3105	7	0
3106	5	0
3107	4	0
3108	5	0
3109	3	0
3110	2	0
3111	5	0
3112	6	0
n	12	12
Mean	5	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 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	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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 gestation

Generation : F0 Sex : Female Day : 20 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	3	0
4102	6	0
4103	5	0
4104	5	0
4105	6	0
4106	2	0
4107	3	0
4108	2	0
4109	1	0
4110	2	0
4111	3	0
4112	6	0
n	12	12
Mean	4	0
S.D.	2	0

Appendix 2 - 241 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
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: Sevear
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. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1101	6	0
1102	3	0
1103	6	0
1104	5	0
1105	6	0
1106	5	0
1107	9	0
1108	6	0
1109	6	0
1111	5	0
1112	6	0
n	11	11
Mean	6	0
S.D.	1	0

Animal No. 1110 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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	1
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
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: Sevear
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. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
2101	5	0
2102	5	0
2103	6	0
2104	4	0
2105	3	0
2106	5	0
2107	6	0
2108	3	0
2109	2	0
2110	6	0
2112	9	0
n	11	11
Mean	5	0
S.D.	2	0

Animal No. 2111 : Not copulated

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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: Sevear
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

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
3101	7	0
3102	6	0
3103	7	0
3104	5	0
3105	7	0
3106	7	0
3107	5	0
3108	4	0
3109	5	0
3110	4	0
3111	6	0
3112	9	0
n	12	12
Mean	6	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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	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	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: Sevear
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

Open field observation Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4101	3	0
4102	5	0
4103	8	0
4104	8	0
4105	8	0
4106	5	0
4107	3	0
4108	6	0
4109	5	0
4110	7	0
4111	5	0
4112	8	0
n	12	12
Mean	6	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	6	0
5102	7	0
5103	6	0
5104	7	0
5105	6	0
5106	10	0
5107	7	0
5108	8	0
5109	6	0
5110	8	0
n	10	10
Mean	7	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	7	0
6102	9	0
6103	8	0
6104	11	0
6105	8	0
6106	8	0
6107	6	0
6108	8	0
6109	9	0
6110	4	0
n	10	10
Mean	8	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	8	0
5102	5	0
5103	7	0
5104	3	0
5105	7	0
5106	13	0
5107	4	0
5108	14	0
5109	8	0
5110	13	0
n	10	10
Mean	8	0
S.D.	4	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	9	0
6102	9	0
6103	5	0
6104	5	0
6105	9	0
6106	7	0
6107	9	0
6108	6	0
6109	9	0
6110	8	0
n	10	10
Mean	8	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	6	0
5102	8	0
5103	6	0
5104	5	0
5105	7	0
5106	8	0
5107	5	0
5108	15	0
5109	7	0
5110	12	0
n	10	10
Mean	8	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 3 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	10	0
6102	9	0
6103	10	0
6104	5	0
6105	11	0
6106	9	0
6107	9	0
6108	7	0
6109	8	0
6110	5	0
n	10	10
Mean	8	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	12	0
5102	6	0
5103	7	0
5104	6	0
5105	8	0
5106	8	0
5107	6	0
5108	11	0
5109	4	0
5110	15	0
n	10	10
Mean	8	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 4 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	11	0
6102	11	0
6103	13	0
6104	8	0
6105	14	0
6106	12	0
6107	8	0
6108	6	0
6109	7	0
6110	9	0
n	10	10
Mean	10	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	8	0
5102	7	0
5103	10	0
5104	5	0
5105	9	0
5106	9	0
5107	6	0
5108	12	0
5109	8	0
5110	11	0
n	10	10
Mean	9	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 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	1
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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 5 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	8	0
6102	8	0
6103	11	0
6104	9	0
6105	6	0
6106	9	0
6107	8	0
6108	7	0
6109	8	0
6110	6	0
n	10	10
Mean	8	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5101	7	0
5102	5	0
5103	8	0
5104	7	0
5105	5	0
5106	10	0
5107	7	0
5108	12	0
5109	9	0
5110	12	0
n	10	10
Mean	8	0
S.D.	3	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6101	7	0
6102	11	0
6103	8	0
6104	5	0
6105	9	0
6106	9	0
6107	11	0
6108	9	0
6109	8	0
6110	8	0
n	10	10
Mean	9	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1008	0	0	0	0	0	N	0	1
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1008	7	0
1009	3	0
1010	4	0
1011	5	0
1012	7	0
n	5	5
Mean	5	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 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	1
4011	0	0	0	0	0	N	0	1
4012	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4008	3	0
4009	5	0
4010	3	0
4011	6	0
4012	4	0
n	5	5
Mean	4	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
1008	0	0	0	0	0	N	0	1
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
1008	6	0
1009	3	0
1010	5	0
1011	3	0
1012	7	0
n	5	5
Mean	5	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	1
4011	0	0	0	0	0	N	0	1
4012	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
4008	4	0
4009	5	0
4010	2	0
4011	6	0
4012	5	0
n	5	5
Mean	4	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5106	15	0
5107	6	0
5108	8	0
5109	6	0
5110	16	0
n	5	5
Mean	10	0
S.D.	5	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 1 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6106	9	0
6107	9	0
6108	6	0
6109	8	0
6110	8	0
n	5	5
Mean	8	0
S.D.	1	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Arousal	Convulsion	Abnormal behavior	Stereotypy	Gait	Posture	Grooming	Urination
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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
5106	10	0
5107	3	0
5108	10	0
5109	7	0
5110	16	0
n	5	5
Mean	9	0
S.D.	5	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	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: Sevear
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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Open field observation

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Rearing	Defecation count
6106	8	0
6107	5	0
6108	6	0
6109	9	0
6110	8	0
n	5	5
Mean	7	0
S.D.	2	0

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Male Week : 6 Period : F0 mating

Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1008	0	88
1009	0	105
1010	0	116
1011	0	45
1012	0	97
n	5	5
Mean	0	90
S.D.	0	27

Aerial righting reflex) Total score

Appendix 2 - 291 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Male Week : 6 Period : F0 mating

Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
2008	0	101
2009	0	121
2010	0	90
2011	0	89
2012	0	99
n	5	5
Mean	0	100
S.D.	0	13

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Male Week : 6 Period : F0 mating Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
3008	0	119
3009	0	103
3010	0	125
3011	0	128
3012	0	67
n	5	5
Mean	0	108
S.D.	0	25

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Male Week : 6 Period : F0 mating

Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4008	0	62
4009	0	68
4010	0	81
4011	0	122
4012	0	64
n	5	5
Mean	0	79
S.D.	0	25

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
1101	0	0	0	0	P
1102	0	0	0	0	P
1103	0	0	0	0	P
1109	0	0	0	0	P
1112	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1101	0	84
1102	0	32
1103	0	91
1109	0	82
1112	0	56
n	5	5
Mean	0	69
S.D.	0	25

Aerial righting reflex) Total score

Appendix 2 - 299 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
2101	0	0	0	0	P
2104	0	0	0	0	P
2108	0	0	0	0	P
2110	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
2101	0	35
2104	0	39
2108	0	81
2110	0	77
2112	0	36
n	5	5
Mean	0	54
S.D.	0	23

Aerial righting reflex) Total score

Appendix 2 - 301 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Pupillary reflex
3102	0	0	0	0	P
3103	0	0	0	0	P
3105	0	0	0	0	P
3106	0	0	0	0	P
3107	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
3102	0	38
3103	0	63
3105	0	45
3106	0	31
3107	0	41
n	5	5
Mean	0	44
S.D.	0	12

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
4104	0	0	0	0	P
4111	0	0	0	0	P
4112	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4102	0	81
4103	0	34
4104	0	34
4111	0	55
4112	0	69
n	5	5
Mean	0	55
S.D.	0	21

Aerial righting reflex) Total score

Appendix 2 - 305 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
5106	0	54
5107	0	74
5108	0	65
5109	0	69
5110	0	66
n	5	5
Mean	0	66
S.D.	0	7

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
6106	0	49
6107	0	60
6108	0	81
6109	0	22
6110	0	98
n	5	5
Mean	0	62
S.D.	0	29

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Auditory response	Approach response	Touch response	Tail pinch response	Tail pinch response	Pupillary reflex
1008	0	0	0	0	0	P
1009	0	0	0	0	0	P
1010	0	0	0	0	0	P
1011	0	0	0	0	0	P
1012	0	0	0	0	0	P
n	5	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
1008	0	63
1009	0	103
1010	0	83
1011	0	32
1012	0	67
n	5	5
Mean	0	70
S.D.	0	26

Aerial righting reflex) Total score

Appendix 2 - 311 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Manipulative test Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Male Week : 2 Period : Recovery

Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
4008	0	77
4009	0	70
4010	0	83
4011	0	72
4012	0	76
n	5	5
Mean	0	76
S.D.	0	5

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Week : 2 Period : Recovery

Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
5106	0	37
5107	0	52
5108	0	79
5109	0	66
5110	0	65
n	5	5
Mean	0	60
S.D.	0	16

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Manipulative test

Generation : F0 Sex : Female Week : 2 Period : Recovery

Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Aerial righting reflex	Landing foot splay mm
6106	0	47
6107	0	52
6108	0	76
6109	0	56
6110	0	83
n	5	5
Mean	0	63
S.D.	0	16

Aerial righting reflex) Total score

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1008	1763	1106
1009	1428	979
1010	1453	1040
1011	1469	1064
1012	1718	984
n	5	5
Mean	1566	1035
S.D.	161	54

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 Sex : Male Week : 6 Period : F0 mating Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
2008	1145	785
2009	1620	1002
2010	1492	839
2011	1462	1161
2012	1631	868
n	5	5
Mean	1470	931
S.D.	197	151

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 Sex : Male Week : 6 Period : F0 mating

Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
3008	1258	1020
3009	1579	1009
3010	1659	875
3011	1185	1025
3012	1440	1006
n	5	5
Mean	1424	987
S.D.	203	63

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 Sex : Male Week : 6 Period : F0 mating Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4008	1568	816
4009	1233	837
4010	1331	883
4011	1090	952
4012	1674	858
n	5	5
Mean	1379	869
S.D.	240	53

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 | Sex : Female | Day : 4 | Period : F0 lactation | Dose : Ethyl Stearate 0 mg/kg | Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1101	1250	742
1102	1269	669
1103	1267	724
1109	1709	547
1112	1490	861
n	5	5
Mean	1397	709
S.D.	201	114

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 | Sex : Female | Day : 4 | Period : F0 lactation | Dose : Ethyl Stearate 100 mg/kg | Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
2101	946	447
2104	1337	750
2108	1079	691
2110	1296	510
2112	1146	458
n	5	5
Mean	1161	571
S.D.	160	140

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Grip strength

Generation : F0 | Sex : Female | Day : 4 | Period : F0 lactation | Dose : Ethyl Stearate 300 mg/kg | Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
3102	1290	648
3103	1155	866
3105	1217	693
3106	1467	599
3107	1312	987
n	5	5
Mean	1288	759
S.D.	118	163

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 | Sex : Female | Day : 4 | Period : F0 lactation | Dose : Ethyl Stearate 1000 mg/kg | Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4102	1121	884
4103	1417	716
4104	1138	659
4111	861	681
4112	1146	724
n	5	5
Mean	1137	733
S.D.	197	89

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
5106	954	578
5107	1024	612
5108	1133	583
5109	922	539
5110	1218	663
n	5	5
Mean	1050	595
S.D.	124	46

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
6106	1029	570
6107	1026	778
6108	1381	453
6109	952	703
6110	1196	573
n	5	5
Mean	1117	615
S.D.	173	127

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
1008	1929	1601
1009	1898	1472
1010	1847	1685
1011	1851	1489
1012	2255	1313
n	5	5
Mean	1956	1512
S.D.	171	141

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Generation : F0 Sex : Male Week : 2 Period : Recovery

Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
4008	2252	1763
4009	2065	1230
4010	2218	1292
4011	2002	1127
4012	2067	1107
n	5	5
Mean	2121	1304
S.D.	108	268

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
5106	1313	976
5107	1431	967
5108	1416	1116
5109	1483	891
5110	1627	993
n	5	5
Mean	1454	989
S.D.	115	81

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Grip strength

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Grip strength of fore limb g	Grip strength of hind limb g
6106	1503	922
6107	1363	721
6108	1548	872
6109	1392	963
6110	1410	828
n	5	5
Mean	1443	861
S.D.	79	93

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	47	208	93	24	7	15	394
1009	363	407	227	100	327	221	1645
1010	421	122	20	24	12	14	613
1011	283	299	122	3	42	3	752
1012	175	90	23	3	8	16	315
n	5	5	5	5	5	5	5
Mean	258	225	97	31	79	54	744
S.D.	150	130	85	40	139	94	533

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	289	82	28	194	31	0	624
2009	301	303	177	35	7	45	868
2010	367	104	21	181	17	26	716
2011	450	312	224	191	114	4	1295
2012	360	333	220	10	206	271	1400
n	5	5	5	5	5	5	5
Mean	353	227	134	122	75	69	981
S.D.	64	123	102	92	85	114	348

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	366	332	356	287	65	94	1500
3009	76	361	133	50	164	3	787
3010	241	183	120	25	1	3	573
3011	130	388	341	226	51	119	1255
3012	436	348	349	312	396	244	2085
n	5	5	5	5	5	5	5
Mean	250	322	260	180	135	93	1240
S.D.	152	81	122	134	157	100	598

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 mating

Generation : F0 Sex : Male Week : 6 Dose : Ethyl Stearate 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	155	13	257	140	13	3	581
4009	120	270	133	150	61	210	944
4010	25	106	23	15	48	285	502
4011	246	300	4	306	3	4	863
4012	345	218	204	239	225	175	1406
n	5	5	5	5	5	5	5
Mean	178	181	124	170	70	135	859
S.D.	122	120	110	110	90	127	357

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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	372	216	146	156	49	5	944
1102	323	290	115	3	129	8	868
1103	217	67	133	24	60	163	664
1109	174	126	259	17	24	6	606
1112	324	243	113	144	12	25	861
n	5	5	5	5	5	5	5
Mean	282	188	153	69	55	41	789
S.D.	83	90	61	75	46	68	145

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
2101	311	136	5	7	7	2	468
2104	143	94	0	12	10	2	261
2108	340	79	216	187	273	229	1324
2110	90	85	50	6	111	168	510
2112	248	70	186	286	78	105	973
n	5	5	5	5	5	5	5
Mean	226	93	91	100	96	101	707
S.D.	107	26	102	130	109	101	432

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : F0 lactation

Generation : F0 Sex : Female Day : 4 Dose : Ethyl Stearate 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
3102	270	231	1	15	6	88	611
3103	145	13	1	69	166	0	394
3105	431	287	185	264	296	211	1674
3106	165	182	263	47	5	2	664
3107	157	1	4	36	119	7	324
n	5	5	5	5	5	5	5
Mean	234	143	91	86	118	62	733
S.D.	121	129	125	101	122	91	545

Appendix 2 - 338 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Motor activity

Generation : F0 Sex : Female Day : 4 Period : F0 lactation Dose : Ethyl Stearate 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	352	276	261	237	6	18	1150
4103	223	127	96	4	0	0	450
4104	273	4	0	10	4	7	298
4111	145	0	191	2	67	149	554
4112	368	91	72	50	20	4	605
n	5	5	5	5	5	5	5
Mean	272	100	124	61	19	36	611
S.D.	92	113	103	101	28	64	323

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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	352	42	150	7	7	13	571
5107	381	258	74	36	0	111	860
5108	310	369	101	162	168	71	1181
5109	372	343	269	273	26	5	1288
5110	430	393	339	289	26	1	1478
n	5	5	5	5	5	5	5
Mean	369	281	187	153	45	40	1076
S.D.	44	143	113	130	69	49	360

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : Administration

Generation : F0 Sex : Female Week : 6 Dose : Ethyl Stearate 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	443	215	2	150	212	188	1210
6107	405	286	358	330	57	7	1443
6108	416	327	16	217	121	2	1099
6109	332	63	1	200	0	93	689
6110	354	209	31	3	14	1	612
n	5	5	5	5	5	5	5
Mean	390	220	82	180	81	58	1011
S.D.	46	101	155	119	87	82	352

Appendix 2 - 341 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Motor activity Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	458	503	372	386	295	257	2271
1009	419	394	305	163	236	237	1754
1010	485	422	352	246	134	310	1949
1011	424	235	244	270	269	174	1616
1012	370	262	178	107	156	334	1407
n	5	5	5	5	5	5	5
Mean	431	363	290	234	218	262	1799
S.D.	43	113	80	107	70	63	330

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : Recovery

Generation : F0 Sex : Male Week : 2 Dose : Ethyl Stearate 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	404	272	187	303	178	43	1387
4009	336	274	299	170	289	151	1519
4010	425	380	394	290	244	188	1921
4011	390	290	291	228	271	227	1697
4012	349	338	237	405	203	293	1825
n	5	5	5	5	5	5	5
Mean	381	311	282	279	237	180	1670
S.D.	37	47	77	88	46	93	218

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	411	282	301	197	231	199	1621
5107	361	322	216	302	313	106	1620
5108	430	289	281	292	122	147	1561
5109	370	322	227	280	308	270	1777
5110	359	288	286	254	270	283	1740
n	5	5	5	5	5	5	5
Mean	386	301	262	265	249	201	1664
S.D.	32	20	38	42	78	77	91

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Motor activity

Period : Recovery

Generation : F0 Sex : Female Week : 2 Dose : Ethyl Stearate 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	432	371	425	330	277	179	2014
6107	384	370	310	287	148	6	1505
6108	376	422	491	174	218	229	1910
6109	349	111	27	15	159	387	1048
6110	372	314	227	330	83	49	1375
n	5	5	5	5	5	5	5
Mean	383	318	296	227	177	170	1570
S.D.	31	122	182	135	74	152	396

Appendix 3 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
1001	429	455	482	496	522	534	544	115
1002	425	452	484	504	535	561	575	150
1003	449	482	512	538	566	591	591	142
1004	430	456	482	492	511	532	541	111
1005	444	476	509	512	545	580	590	146
1006	446	467	496	508	534	564	582	136
1007	440	472	495	511	537	561	574	134
1008	416	448	472	487	512	521	532	116
1009	417	429	449	463	474	492	511	94
1010	435	474	502	524	555	578	589	154
1011	422	444	470	487	503	523	525	103
1012	441	465	502	521	548	568	580	139
n	12	12	12	12	12	12	12	12
Mean	433	460	488	504	529	550	561	128
S.D.	11	15	18	20	25	30	29	20

Appendix 3 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
2001	427	453	479	501	516	536	554	127
2002	415	442	467	480	500	518	537	122
2003	409	439	468	480	506	538	557	148
2004	430	461	492	506	511	530	538	108
2005	433	450	469	476	490	504	511	78
2006	446	471	501	523	546	558	572	126
2007	428	458	487	506	535	551	564	136
2008	433	461	492	514	532	545	562	129
2009	439	484	514	535	561	590	597	158
2010	422	451	477	498	533	548	565	143
2011	435	473	507	526	549	568	585	150
2012	452	488	518	535	563	579	579	127
n	12	12	12	12	12	12	12	12
Mean	431	461	489	507	529	547	560	129
S.D.	12	15	18	21	24	25	23	21

Appendix 3 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
3001	420	453	487	510	524	533	533	113
3002	453	495	518	538	562	579	599	146
3003	431	471	500	513	538	538	544	113
3004	438	485	511	534	560	577	595	157
3005	431	457	476	490	516	546	568	137
3006	435	474	501	522	538	543	548	113
3007	436	469	490	505	528	550	565	129
3008	418	439	457	467	491	507	518	100
3009	420	442	463	481	508	526	537	117
3010	439	466	497	516	539	561	573	134
3011	433	463	487	494	514	540	544	111
3012	412	455	482	503	525	545	566	154
n	12	12	12	12	12	12	12	12
Mean	431	464	489	506	529	545	558	127
S.D.	11	16	18	21	21	20	25	19

Appendix 3 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
4001	431	464	488	500	518	526	532	101
4002	432	465	484	499	517	528	543	111
4003	439	466	497	512	537	551	555	116
4004	408	439	470	480	509	518	533	125
4005	417	448	466	486	496	506	519	102
4006	439	461	489	507	537	562	581	142
4007	438	458	479	485	510	529	546	108
4008	448	477	508	538	564	575	589	141
4009	413	440	469	471	488	507	522	109
4010	425	438	456	477	491	507	510	85
4011	422	456	476	498	514	529	538	116
4012	440	467	498	513	536	557	565	125
n	12	12	12	12	12	12	12	12
Mean	429	457	482	497	518	533	544	115
S.D.	12	13	15	19	22	23	24	16

Appendix 3 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
1101	235	246	258	23
1102	232	248	251	19
1103	248	252	272	24
1104	241	260	267	26
1105	227	245	255	28
1106	239	255	264	25
1107	231	247	250	19
1108	228	249	255	27
1109	228	242	255	27
1110	227	243	249	22
1111	209	219	231	22
1112	260	273	277	17
n	12	12	12	12
Mean	234	248	257	23
S.D.	13	13	12	4

Appendix 3 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
2101	227	236	250	23
2102	223	231	256	33
2103	246	258	260	14
2104	241	259	273	32
2105	238	256	267	29
2106	228	247	258	30
2107	231	236	228	-3
2108	222	247	249	27
2109	236	252	262	26
2110	236	247	263	27
2111	251	266	268	17
2112	222	226	238	16
n	12	12	12	12
Mean	233	247	256	23
S.D.	10	12	13	10

Appendix 3 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
3101	253	264	263	10
3102	237	243	259	22
3103	213	233	232	19
3104	211	225	231	20
3105	234	244	253	19
3106	237	238	253	16
3107	226	247	261	35
3108	232	244	247	15
3109	237	250	254	17
3110	234	252	259	25
3111	219	223	224	5
3112	242	256	260	18
n	12	12	12	12
Mean	231	243	250	18
S.D.	12	12	13	7

Appendix 3 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	Body weight gain
4101	232	246	250	18
4102	257	266	283	26
4103	240	247	258	18
4104	219	238	246	27
4105	227	243	251	24
4106	232	230	242	10
4107	247	249	266	19
4108	217	236	245	28
4109	235	250	257	22
4110	241	258	264	23
4111	217	221	238	21
4112	244	272	281	37
n	12	12	12	12
Mean	234	246	257	23
S.D.	13	14	15	7

Appendix 3 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
1101	263	294	331	419	156
1102	250	276	307	368	118
1103	276	325	364	456	180
1104	262	303	339	415	153
1105	269	301	340	420	151
1106	266	301	332	411	145
1107	254	282	318	389	135
1108	260	285	318	400	140
1109	259	309	351	439	180
1111	230	260	290	354	124
1112	285	321	353	432	147
n	11	11	11	11	11
Mean	261	296	331	409	148
S.D.	14	19	22	30	20

Animal No. 1110 : Not copulated

Appendix 3 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
2101	253	282	311	379	126
2102	278	301	333	377	99
2103	261	300	325	393	132
2104	278	312	334	412	134
2105	273	302	332	422	149
2106	261	297	329	405	144
2107	246	274	302	391	145
2108	249	287	330	423	174
2109	274	298	334	417	143
2110	265	306	340	431	166
2112	244	287	322	413	169
n	11	11	11	11	11
Mean	262	295	327	406	144
S.D.	13	11	11	18	22

Animal No. 2111 : Not copulated

Appendix 3 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
3101	282	304	338	414	132
3102	260	299	330	410	150
3103	232	268	291	380	148
3104	237	272	307	385	148
3105	256	294	328	423	167
3106	254	281	311	388	134
3107	267	302	338	420	153
3108	247	271	312	391	144
3109	262	299	336	439	177
3110	261	291	320	425	164
3111	238	269	303	389	151
3112	261	303	346	442	181
n	12	12	12	12	12
Mean	255	288	322	409	154
S.D.	14	15	17	22	15

Appendix 3 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	7	14	20	Body weight gain
4101	253	279	313	409	156
4102	288	334	376	466	178
4103	266	305	343	428	162
4104	248	279	309	389	141
4105	256	290	317	385	129
4106	247	285	313	395	148
4107	268	310	350	428	160
4108	253	281	314	388	135
4109	275	304	337	428	153
4110	274	295	325	418	144
4111	243	276	309	379	136
4112	287	328	363	440	153
n	12	12	12	12	12
Mean	263	297	331	413	150
S.D.	15	19	23	26	14

Appendix 3 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
1101	302	313	11
1102	303	288	-15
1103	361	352	-9
1104	315	330	15
1105	312	337	25
1106	326	333	7
1107	324	300	-24
1108	296	308	12
1109	363	339	-24
1111	280	288	8
1112	343	326	-17
n	11	11	11
Mean	320	319	-1
S.D.	26	21	17

Animal No. 1110 : Not copulated

Appendix 3 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
2101	301	289	-12
2102	333	307	-26
2103	337	334	-3
2104	322	321	-1
2105	336	318	-18
2106	324	310	-14
2107	293	316	23
2108	316	333	17
2109	333	323	-10
2110	341	331	-10
2112	335	308	-27
n	11	11	11
Mean	325	317	-7
S.D.	16	13	16

Animal No. 2111 : Not copulated

Appendix 3 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
3101	336	329	-7
3102	280	326	46
3103	280	300	20
3104	298	306	8
3105	309	320	11
3106	311	304	-7
3107	333	334	1
3108	303	263	-40
3109	330	330	0
3110	305	313	8
3111	322	304	-18
3112	332	342	10
n	12	12	12
Mean	312	314	3
S.D.	20	21	21

Appendix 3 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 0	4	Body weight gain
4101	291	321	30
4102	365	361	-4
4103	317	338	21
4104	304	315	11
4105	318	304	-14
4106	304	316	12
4107	332	321	-11
4108	290	304	14
4109	308	317	9
4110	326	302	-24
4111	311	292	-19
4112	350	343	-7
n	12	12	12
Mean	318	320	2
S.D.	22	20	17

Appendix 3 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Administration

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
5101	249	263	268	279	297	302	312	63
5102	250	255	268	284	287	290	306	56
5103	231	238	250	252	255	257	265	34
5104	225	250	261	267	273	283	289	64
5105	227	219	244	253	256	262	274	47
5106	235	244	244	250	245	254	264	29
5107	224	230	246	249	250	250	258	34
5108	227	247	258	256	256	267	268	41
5109	227	263	278	277	276	292	296	69
5110	250	266	270	286	288	294	295	45
n	10	10	10	10	10	10	10	10
Mean	235	248	259	265	268	275	283	48
S.D.	11	15	12	15	18	19	19	14

Appendix 3 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Administration

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	15	22	29	36	42	Body weight gain
6101	226	231	242	248	253	252	270	44
6102	239	255	266	270	287	295	289	50
6103	243	263	257	273	275	270	283	40
6104	230	240	266	276	283	275	297	67
6105	235	246	255	260	265	277	283	48
6106	231	239	250	253	266	272	274	43
6107	221	242	254	261	259	269	275	54
6108	240	253	264	267	278	280	290	50
6109	238	264	280	285	290	300	300	62
6110	227	245	257	259	262	270	275	48
n	10	10	10	10	10	10	10	10
Mean	233	248	259	265	272	276	284	51
S.D.	7	11	10	11	13	14	10	8

Appendix 3 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
1008	543	559	571	28
1009	516	534	545	29
1010	587	600	615	28
1011	530	546	559	29
1012	585	604	611	26
n	5	5	5	5
Mean	552	569	580	28
S.D.	32	32	31	1

Appendix 3 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
4008	586	607	621	35
4009	520	534	518	-2
4010	511	515	519	8
4011	544	557	549	5
4012	567	586	589	22
n	5	5	5	5
Mean	546	560	559	14
S.D.	31	37	45	15

Appendix 3 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
5106	270	269	264	-6
5107	259	267	265	6
5108	274	258	272	-2
5109	304	311	315	11
5110	286	306	302	16
n	5	5	5	5
Mean	279	282	284	5
S.D.	17	24	23	9

Appendix 3 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	8	14	Body weight gain
6106	277	275	287	10
6107	278	275	277	-1
6108	289	301	293	4
6109	306	304	304	-2
6110	279	284	279	0
n	5	5	5	5
Mean	286	288	288	2
S.D.	12	14	11	5

Appendix 4 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
1001	25	20	21	23	22	22	133
1002	17	25	22	21	19	19	123
1003	22	27	24	29	26	21	149
1004	20	20	19	19	18	18	114
1005	27	26	23	23	24	23	146
1006	20	19	22	24	20	19	124
1007	22	26	21	17	20	21	127
1008	22	27	23	20	21	21	134
1009	17	24	20	20	22	22	125
1010	21	29	25	24	23	23	145
1011	17	26	19	19	20	20	121
1012	21	23	23	21	22	25	135
n	12	12	12	12	12	12	12
Mean	21	24	22	22	21	21	131
S.D.	3	3	2	3	2	2	11

Appendix 4 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
2001	21	25	22	18	23	22	131
2002	20	23	21	21	22	22	129
2003	20	22	22	21	24	23	132
2004	22	26	21	18	22	21	130
2005	19	22	20	19	18	16	114
2006	24	27	25	23	23	23	145
2007	23	28	19	22	23	22	137
2008	22	25	21	19	21	22	130
2009	24	36	28	23	27	25	163
2010	23	24	20	18	22	21	128
2011	23	25	23	17	21	22	131
2012	23	28	24	20	23	23	141
n	12	12	12	12	12	12	12
Mean	22	26	22	20	22	22	134
S.D.	2	4	3	2	2	2	12

Appendix 4 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
3001	24	30	26	20	19	18	137
3002	23	28	25	25	21	26	148
3003	23	30	24	20	25	22	144
3004	25	30	23	24	25	21	148
3005	19	23	18	22	23	21	126
3006	20	23	21	20	20	19	123
3007	22	26	21	21	20	21	131
3008	19	20	18	19	22	20	118
3009	19	20	20	18	19	17	113
3010	24	23	21	21	18	22	129
3011	25	27	24	27	21	20	144
3012	21	28	20	21	20	21	131
n	12	12	12	12	12	12	12
Mean	22	26	22	22	21	21	133
S.D.	2	4	3	3	2	2	12

Appendix 4 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15, F0 mating Day 15-43

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
4001	23	24	21	22	19	17	126
4002	18	26	15	19	19	18	115
4003	22	27	27	18	21	17	132
4004	25	20	16	21	19	15	116
4005	20	26	20	20	22	21	129
4006	22	24	20	20	23	23	132
4007	20	22	20	20	20	19	121
4008	22	27	26	23	28	24	150
4009	21	24	22	19	20	19	125
4010	20	23	20	19	20	19	121
4011	20	25	21	21	24	20	131
4012	23	26	23	18	21	17	128
n	12	12	12	12	12	12	12
Mean	21	25	21	20	21	19	127
S.D.	2	2	3	2	3	3	9

Appendix 4 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
1101	14	15	15	44
1102	13	18	13	44
1103	15	17	19	51
1104	9	18	14	41
1105	13	18	17	48
1106	14	19	16	49
1107	10	16	10	36
1108	13	18	13	44
1109	16	18	17	51
1110	9	20	12	41
1111	7	14	12	33
1112	12	22	17	51
n	12	12	12	12
Mean	12	18	15	44
S.D.	3	2	3	6

Appendix 4 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
2101	12	15	13	40
2102	10	19	18	47
2103	14	17	12	43
2104	12	18	16	46
2105	11	17	15	43
2106	13	17	14	44
2107	13	14	10	37
2108	14	16	12	42
2109	8	18	15	41
2110	13	14	14	41
2111	10	20	15	45
2112	14	13	14	41
n	12	12	12	12
Mean	12	17	14	43
S.D.	2	2	2	3

Appendix 4 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
3101	14	17	13	44
3102	15	13	17	45
3103	11	19	10	40
3104	12	15	14	41
3105	10	20	18	48
3106	14	13	17	44
3107	12	17	15	44
3108	10	17	13	40
3109	8	18	16	42
3110	14	18	17	49
3111	11	17	11	39
3112	14	20	15	49
n	12	12	12	12
Mean	12	17	15	44
S.D.	2	2	3	4

Appendix 4 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 before mating Day 1-15

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	Total food consumption
4101	9	18	12	39
4102	17	13	18	48
4103	16	15	14	45
4104	11	17	11	39
4105	8	18	14	40
4106	9	12	15	36
4107	15	15	16	46
4108	14	15	14	43
4109	14	18	13	45
4110	11	21	15	47
4111	12	12	13	37
4112	11	20	16	47
n	12	12	12	12
Mean	12	16	14	43
S.D.	3	3	2	4

Appendix 4 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
1101	15	24	17	19	75
1102	16	13	17	16	62
1103	19	25	22	23	89
1104	12	19	20	18	69
1105	15	19	19	17	70
1106	16	19	22	19	76
1107	13	17	19	18	67
1108	13	20	22	22	77
1109	19	24	22	22	87
1111	10	13	17	13	53
1112	18	18	19	17	72
n	11	11	11	11	11
Mean	15	19	20	19	72
S.D.	3	4	2	3	10

Animal No. 1110 : Not copulated

Appendix 4 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
2101	14	19	18	19	70
2102	10	20	23	22	75
2103	13	17	17	20	67
2104	17	19	19	19	74
2105	12	19	21	22	74
2106	19	19	20	17	75
2107	14	17	18	18	67
2108	14	18	18	22	72
2109	15	20	18	20	73
2110	15	21	19	23	78
2112	17	21	18	22	78
n	11	11	11	11	11
Mean	15	19	19	20	73
S.D.	3	1	2	2	4

Animal No. 2111 : Not copulated

Appendix 4 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
3101	16	12	16	16	60
3102	17	17	17	17	68
3103	14	20	17	22	73
3104	16	18	21	18	73
3105	15	20	21	23	79
3106	18	18	16	21	73
3107	16	18	20	19	73
3108	11	19	21	23	74
3109	15	19	19	23	76
3110	16	17	19	25	77
3111	16	17	20	21	74
3112	17	18	22	19	76
n	12	12	12	12	12
Mean	16	18	19	21	73
S.D.	2	2	2	3	5

Appendix 4 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 gestation Day 0-25

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 1	7	14	20	Total food consumption
4101	15	19	18	22	74
4102	22	23	21	26	92
4103	17	18	19	25	79
4104	14	17	19	18	68
4105	15	18	16	16	65
4106	14	22	19	19	74
4107	17	22	20	21	80
4108	15	19	20	17	71
4109	13	18	22	18	71
4110	14	17	18	23	72
4111	14	19	18	18	69
4112	20	22	23	22	87
n	12	12	12	12	12
Mean	16	20	19	20	75
S.D.	3	2	2	3	8

Appendix 4 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
1101	21	33	54
1102	16	28	44
1103	23	42	65
1104	25	33	58
1105	30	45	75
1106	25	38	63
1107	15	25	40
1108	33	38	71
1109	25	33	58
1111	15	33	48
1112	16	31	47
n	11	11	11
Mean	22	34	57
S.D.	6	6	11

Animal No. 1110 : Not copulated

Appendix 4 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
2101	16	28	44
2102	17	26	43
2103	21	38	59
2104	20	31	51
2105	22	30	52
2106	20	32	52
2107	25	37	62
2108	25	43	68
2109	20	30	50
2110	17	26	43
2112	20	25	45
n	11	11	11
Mean	20	31	52
S.D.	3	6	8

Animal No. 2111 : Not copulated

Appendix 4 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
3101	22	31	53
3102	24	39	63
3103	29	41	70
3104	27	41	68
3105	26	40	66
3106	19	31	50
3107	21	30	51
3108	25	33	58
3109	25	38	63
3110	33	39	72
3111	25	27	52
3112	28	41	69
n	12	12	12
Mean	25	36	61
S.D.	4	5	8

Appendix 4 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : F0 lactation Day 0-5

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	4	Total food consumption
4101	35	46	81
4102	29	41	70
4103	28	36	64
4104	25	36	61
4105	16	28	44
4106	20	36	56
4107	20	30	50
4108	19	29	48
4109	24	39	63
4110	16	28	44
4111	22	37	59
4112	26	33	59
n	12	12	12
Mean	23	35	58
S.D.	6	6	11

Appendix 4 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Administration

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
5101	14	19	12	13	15	17	90
5102	14	15	14	15	13	15	86
5103	16	12	15	13	10	13	79
5104	14	17	16	15	16	12	90
5105	15	9	14	18	14	18	88
5106	10	17	16	13	13	12	81
5107	16	17	16	18	14	18	99
5108	14	17	11	11	13	11	77
5109	16	26	22	17	18	14	113
5110	16	19	15	16	15	15	96
n	10	10	10	10	10	10	10
Mean	15	17	15	15	14	15	90
S.D.	2	4	3	2	2	3	11

Appendix 4 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Administration

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	15	30	36	42	Total food consumption
6101	15	19	17	18	14	19	102
6102	9	18	15	12	15	11	80
6103	15	23	14	19	14	17	102
6104	14	13	19	19	9	18	92
6105	9	19	16	13	16	17	90
6106	10	17	13	13	18	12	83
6107	13	18	14	15	16	12	88
6108	12	17	15	15	10	13	82
6109	13	17	11	12	15	11	79
6110	15	18	19	16	16	14	98
n	10	10	10	10	10	10	10
Mean	13	18	15	15	14	14	90
S.D.	2	2	3	3	3	3	9

Appendix 4 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
1008	23	28	30	81
1009	21	27	26	74
1010	24	25	26	75
1011	20	24	25	69
1012	25	28	25	78
n	5	5	5	5
Mean	23	26	26	75
S.D.	2	2	2	5

Appendix 4 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
4008	26	29	30	85
4009	18	26	20	64
4010	18	24	24	66
4011	19	28	25	72
4012	20	25	27	72
n	5	5	5	5
Mean	20	26	25	72
S.D.	3	2	4	8

Appendix 4 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
5106	14	16	18	48
5107	16	20	19	55
5108	13	10	15	38
5109	18	22	21	61
5110	15	22	17	54
n	5	5	5	5
Mean	15	18	18	51
S.D.	2	5	2	9

Appendix 4 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Food consumption Period : Recovery Day 1-15

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Unit : g Species : Rat

Animal No.	/Day 2	8	14	Total food consumption
6106	15	16	19	50
6107	14	15	19	48
6108	12	17	13	42
6109	14	14	18	46
6110	15	20	20	55
n	5	5	5	5
Mean	14	16	18	48
S.D.	1	2	3	5

Appendix 5 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
1008	8.0	+/-	1+	-	+/-	-	+/-	Y
1009	7.0	+/-	1+	-	1+	-	+/-	Y
1010	>=9.0	-	+/-	-	+/-	-	+/-	Y
1011	7.5	1+	2+	-	-	1+	+/-	Y
1012	8.0	-	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

Appendix 5 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
2008	7.5	+/-	1+	-	-	-	+/-	Y
2009	>=9.0	1+	1+	-	+/-	-	+/-	Y
2010	7.0	1+	1+	-	+/-	-	+/-	Y
2011	8.0	+/-	-	-	+/-	-	+/-	Y
2012	8.5	1+	2+	-	+/-	-	+/-	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

Appendix 5 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
3008	8.0	-	+/-	-	+/-	-	+/-	Y
3009	7.5	1+	1+	-	+/-	1+	+/-	Y
3010	7.0	1+	2+	1+	-	1+	+/-	Y
3011	>=9.0	1+	1+	-	+/-	-	+/-	Y
3012	8.0	-	+/-	-	+/-	-	+/-	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

Appendix 5 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
4008	8.5	+/-	+/-	-	+/-	-	+/-	Y
4009	7.0	-	-	-	+/-	-	+/-	Y
4010	8.5	2+	3+	1+	-	1+	+/-	Y
4011	7.5	-	1+	-	+/-	-	+/-	Y
4012	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

Appendix 5 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Urine Volime mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
1008	10.4	1412	1.4	2.3	1.7
1009	12.3	926	0.7	1.8	1.1
1010	25.9	936	2.0	3.5	2.7
1011	8.6	2166	1.5	2.9	1.8
1012	10.6	1996	1.6	3.3	2.1
n	5	5	5	5	5
Mean	13.6	1487	1.4	2.8	1.9
S.D.	7.0	580	0.5	0.7	0.6

Appendix 5 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Urine Volime mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
2008	6.7	2496	1.3	2.6	1.8
2009	15.1	1716	1.8	3.9	2.5
2010	9.1	2038	1.3	2.7	1.7
2011	7.2	2274	1.2	3.0	1.9
2012	6.7	2302	1.1	2.5	1.5
n	5	5	5	5	5
Mean	9.0	2165	1.3	2.9	1.9
S.D.	3.6	299	0.3	0.6	0.4

Appendix 5 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Urine Volime mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
3008	19.2	1186	1.9	3.5	2.3
3009	6.5	2108	0.9	2.2	1.3
3010	7.2	2004	1.1	2.6	1.6
3011	10.6	1548	1.4	2.8	1.9
3012	17.4	1420	1.8	4.1	2.6
n	5	5	5	5	5
Mean	12.2	1653	1.4	3.0	1.9
S.D.	5.8	392	0.4	0.8	0.5

Appendix 5 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Urine Volime mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
4008	13.1	2224	2.0	4.7	2.8
4009	54.0	414	1.4	3.7	2.1
4010	7.1	2346	1.4	2.6	1.8
4011	5.6	2316	1.1	2.1	1.5
4012	11.2	1992	1.9	3.3	2.6
n	5	5	5	5	5
Mean	18.2	1858	1.6	3.3	2.2
S.D.	20.2	819	0.4	1.0	0.5

Appendix 5 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
5106	6.0	-	+/-	-	-	-	+/-	Y
5107	6.5	-	1+	-	-	-	+/-	Y
5108	8.0	-	1+	1+	-	1+	+/-	Y
5109	7.0	-	-	-	-	-	+/-	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

Appendix 5 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
6106	7.0	-	1+	-	-	-	+/-	Y
6107	7.0	-	-	-	-	-	+/-	Y
6108	8.5	-	+/-	-	-	-	+/-	Y
6109	8.0	-	-	-	-	-	+/-	Y
6110	6.5	-	-	-	-	-	+/-	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

Appendix 5 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 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

Appendix 5 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 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

Appendix 5 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
5106	8.7	1438	0.8	2.0	1.2
5107	5.0	2298	0.9	1.7	1.1
5108	3.3	2640	0.6	1.4	0.9
5109	15.8	1158	1.5	2.9	2.0
5110	6.6	1880	0.7	1.8	1.3
n	5	5	5	5	5
Mean	7.9	1883	0.9	2.0	1.3
S.D.	4.9	606	0.4	0.6	0.4

Appendix 5 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 6 of administration

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
6106	6.6	1670	0.9	1.7	1.3
6107	17.1	1000	1.5	2.7	2.0
6108	6.8	1722	1.0	1.8	1.2
6109	9.7	1652	1.2	2.6	1.8
6110	16.3	1076	1.5	2.8	2.0
n	5	5	5	5	5
Mean	11.3	1424	1.2	2.3	1.7
S.D.	5.1	354	0.3	0.5	0.4

Appendix 5 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
1008	8.0	+/-	1+	-	+/-	-	+/-	Y
1009	>=9.0	+/-	1+	-	+/-	-	+/-	Y
1010	>=9.0	-	-	-	+/-	-	+/-	Y
1011	8.5	+/-	1+	-	+/-	1+	+/-	Y
1012	>=9.0	-	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

Appendix 5 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
4008	>=9.0	+/-	+/-	-	+/-	-	+/-	Y
4009	8.5	-	-	-	+/-	-	+/-	Y
4010	>=9.0	1+	1+	-	-	-	+/-	Y
4011	7.5	2+	1+	-	+/-	-	+/-	Y
4012	8.0	-	+/-	-	+/-	-	+/-	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

Appendix 5 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 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

Appendix 5 - 23 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
1008	14.2	1652	1.6	3.6	2.4
1009	18.9	1372	1.9	3.9	2.7
1010	25.0	1602	2.6	6.0	4.6
1011	13.6	2226	2.1	4.7	3.1
1012	15.3	2296	2.7	5.2	3.6
n	5	5	5	5	5
Mean	17.4	1830	2.2	4.7	3.3
S.D.	4.7	408	0.5	1.0	0.9

Appendix 5 - 24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Male Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
4008	13.5	2320	2.0	5.1	3.3
4009	52.4	634	2.3	4.9	3.0
4010	10.9	2072	1.6	3.4	2.2
4011	6.5	2258	1.2	2.2	1.6
4012	12.4	1936	1.9	3.6	2.2
n	5	5	5	5	5
Mean	19.1	1844	1.8	3.8	2.5
S.D.	18.8	693	0.4	1.2	0.7

Appendix 5 - 25 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
5106	7.5	-	-	-	-	-	+/-	Y
5107	6.5	1+	+/-	-	-	1+	+/-	Y
5108	>=9.0	-	-	-	-	-	+/-	Y
5109	8.0	-	-	-	-	-	+/-	Y
5110	>=9.0	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

Appendix 5 - 26 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	pH	Protein	Ketones	Glucose	Occult Blood	Bilirubin	Urobilinogen	Color
6106	8.0	-	-	-	-	-	+/-	Y
6107	7.0	-	-	-	-	-	+/-	Y
6108	6.0	1+	+/-	-	-	-	+/-	Y
6109	8.5	+/-	+/-	-	-	-	+/-	Y
6110	7.5	-	-	-	-	-	+/-	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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Urinalysis

Stage : Week 2 of recovery

Sex : Female

Dose : Ethyl Stearate 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

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Urinalysis

Stage : Week 2 of recovery

Sex : Female

Dose : Ethyl Stearate 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

Appendix 5 - 29 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
5106	5.5	2082	0.9	1.4	1.1
5107	6.5	2424	1.4	2.1	1.6
5108	7.1	2318	1.1	2.6	1.8
5109	8.7	2164	1.6	2.9	2.0
5110	6.6	1986	1.0	1.9	1.4
n	5	5	5	5	5
Mean	6.9	2195	1.2	2.2	1.6
S.D.	1.2	177	0.3	0.6	0.3

Appendix 5 - 30 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Urinalysis Stage : Week 2 of recovery

Sex : Female Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Urine Volume mL/24h	Osmotic pressure mOsm/kg	U-Na mmol/24h	U-K mmol/24h	U-Cl mmol/24h
6106	5.9	1602	0.7	1.5	1.1
6107	6.5	2132	1.2	1.9	1.4
6108	6.3	1126	0.4	1.0	0.6
6109	5.1	2416	0.9	1.8	1.1
6110	7.0	1740	0.9	1.7	1.1
n	5	5	5	5	5
Mean	6.2	1803	0.8	1.6	1.1
S.D.	0.7	497	0.3	0.4	0.3

Appendix 6 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	824	16.1	44.9	54.5	19.5	35.8	2.1	84.9	109.7	82.2	14.2
1002	887	15.6	45.4	51.2	17.6	34.4	1.7	105.3	62.8	83.1	13.0
1003	886	15.5	44.7	50.5	17.5	34.7	1.9	105.7	87.2	76.0	18.1
1004	905	16.0	46.3	51.2	17.7	34.6	1.8	104.3	80.2	62.7	32.2
1005	823	15.6	45.1	54.9	18.9	34.5	1.8	92.9	71.9	77.1	17.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	865	15.8	45.3	52.5	18.2	34.8	1.9	98.6	82.4	76.2	18.9
S.D.	39	0.3	0.6	2.1	0.9	0.6	0.2	9.3	17.8	8.2	7.7

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
1001	1.1	0.4	1.4	0.6	90.2	15.6	1.2	0.5	1.6	0.7	13.1
1002	1.0	0.3	2.3	0.3	52.2	8.2	0.7	0.2	1.5	0.2	13.1
1003	2.0	0.3	3.0	0.6	66.2	15.8	1.7	0.2	2.7	0.5	12.6
1004	2.1	0.3	2.6	0.2	50.3	25.8	1.7	0.2	2.0	0.2	13.3
1005	1.1	0.4	3.6	0.7	55.4	12.3	0.8	0.3	2.6	0.5	13.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.5	0.3	2.6	0.5	62.9	15.5	1.2	0.3	2.1	0.4	13.1
S.D.	0.5	0.1	0.8	0.2	16.5	6.5	0.5	0.1	0.6	0.2	0.3

Animal No.	APTT s	FIB mg/dL
1001	18.1	301
1002	17.1	339
1003	17.6	327
1004	18.8	264
1005	15.1	283
n	5	5
Mean	17.3	303
S.D.	1.4	31

Appendix 6 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	808	15.2	43.5	53.8	18.9	35.0	2.8	101.7	103.6	82.2	13.0
2002	848	16.5	46.2	54.5	19.4	35.7	2.0	101.8	99.2	69.9	23.7
2003	772	14.5	41.5	53.8	18.8	34.9	2.6	104.2	92.4	71.9	22.2
2004	842	15.8	45.5	54.0	18.7	34.6	1.7	86.7	74.4	74.8	20.1
2005	858	15.5	44.2	51.6	18.1	35.1	1.8	113.9	65.5	78.7	16.9
n	5	5	5	5	5	5	5	5	5	5	5
Mean	826	15.5	44.2	53.5	18.8	35.1	2.2	101.7	87.0	75.5	19.2
S.D.	35	0.7	1.8	1.1	0.5	0.4	0.5	9.7	16.4	5.0	4.3

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
2001	1.8	0.3	2.1	0.8	85.1	13.4	1.9	0.3	2.1	0.8	12.9
2002	3.6	0.3	2.1	0.4	69.4	23.5	3.6	0.2	2.1	0.4	12.6
2003	1.9	0.2	3.2	0.6	66.4	20.5	1.8	0.2	2.9	0.5	12.9
2004	1.2	0.2	3.0	0.7	55.6	15.0	0.9	0.2	2.3	0.5	13.1
2005	1.5	0.3	2.3	0.3	51.6	11.1	1.0	0.2	1.5	0.2	14.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	2.0	0.3	2.5	0.6	65.6	16.7	1.8	0.2	2.2	0.5	13.2
S.D.	0.9	0.1	0.5	0.2	13.1	5.1	1.1	0.0	0.5	0.2	0.7

Animal No.	APTT s	FIB mg/dL
2001	17.4	269
2002	16.8	280
2003	15.8	282
2004	14.9	270
2005	18.5	288
n	5	5
Mean	16.7	278
S.D.	1.4	8

Appendix 6 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	890	15.8	45.7	51.4	17.8	34.6	1.2	97.5	83.2	80.8	14.1
3002	911	16.4	46.3	50.8	18.0	35.5	1.7	99.9	96.3	68.4	25.8
3003	828	15.5	44.5	53.7	18.7	34.8	1.5	114.4	79.2	70.2	26.3
3004	873	16.2	45.9	52.6	18.5	35.2	2.1	108.4	109.6	61.2	33.0
3005	840	15.8	46.0	54.7	18.8	34.4	2.6	92.5	72.1	69.8	23.5
n	5	5	5	5	5	5	5	5	5	5	5
Mean	868	15.9	45.7	52.6	18.4	34.9	1.8	102.5	88.1	70.1	24.5
S.D.	34	0.4	0.7	1.6	0.4	0.4	0.5	8.8	14.9	7.0	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
3001	2.1	0.2	2.0	0.8	67.3	11.7	1.7	0.2	1.6	0.7	13.0
3002	1.6	0.3	2.7	1.2	65.9	24.8	1.6	0.3	2.6	1.1	12.5
3003	1.0	0.2	1.9	0.5	55.6	20.8	0.8	0.2	1.5	0.4	15.0
3004	1.4	0.3	3.6	0.4	67.1	36.2	1.5	0.4	4.0	0.4	12.5
3005	1.4	0.3	4.3	0.8	50.3	16.9	1.0	0.2	3.1	0.6	13.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.5	0.3	2.9	0.7	61.2	22.1	1.3	0.3	2.6	0.6	13.3
S.D.	0.4	0.1	1.0	0.3	7.8	9.3	0.4	0.1	1.1	0.3	1.0

Animal No.	APTT s	FIB mg/dL
3001	18.5	263
3002	16.4	332
3003	16.8	258
3004	14.7	308
3005	16.0	293
n	5	5
Mean	16.5	291
S.D.	1.4	31

Appendix 6 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	873	17.0	47.7	54.6	19.5	35.7	1.6	101.5	115.3	89.8	6.5
4002	818	15.5	43.7	53.4	18.9	35.4	2.0	103.3	68.8	79.5	16.9
4003	808	15.5	43.8	54.2	19.2	35.5	1.8	102.9	91.2	80.3	13.2
4004	819	15.8	46.2	56.5	19.3	34.3	1.8	97.0	78.0	66.3	26.4
4005	823	15.5	44.4	53.9	18.8	34.9	1.8	93.9	97.4	69.8	25.5
n	5	5	5	5	5	5	5	5	5	5	5
Mean	828	15.9	45.2	54.5	19.1	35.2	1.8	99.7	90.1	77.1	17.7
S.D.	26	0.7	1.7	1.2	0.3	0.6	0.1	4.1	18.0	9.3	8.4

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
4001	1.0	0.5	1.4	0.9	103.5	7.5	1.1	0.5	1.7	1.0	14.5
4002	1.2	0.2	1.6	0.5	54.7	11.7	0.8	0.1	1.1	0.4	13.3
4003	1.6	0.3	3.5	1.0	73.2	12.0	1.5	0.3	3.2	0.9	13.9
4004	0.8	0.3	5.0	1.2	51.7	20.6	0.6	0.2	3.9	0.9	12.4
4005	0.9	0.2	3.0	0.6	68.0	24.8	0.9	0.2	2.9	0.6	15.1
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.1	0.3	2.9	0.8	70.2	15.3	1.0	0.3	2.6	0.8	13.8
S.D.	0.3	0.1	1.5	0.3	20.6	7.1	0.3	0.2	1.1	0.3	1.0

Animal No.	APTT s	FIB mg/dL
4001	21.1	303
4002	16.6	238
4003	17.9	325
4004	17.5	416
4005	16.0	283
n	5	5
Mean	17.8	313
S.D.	2.0	66

Appendix 6 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	720	13.5	39.5	54.8	18.7	34.2	5.5	95.6	118.3	60.2	35.0
1102	657	12.9	36.8	56.0	19.6	35.0	4.8	129.6	89.2	56.9	39.0
1103	671	13.5	38.8	57.7	20.2	35.0	5.9	153.8	99.3	56.6	33.3
1109	684	13.8	39.9	58.3	20.2	34.6	6.2	165.1	131.7	69.9	26.2
1112	725	13.4	39.0	53.8	18.5	34.3	3.5	142.1	69.3	59.1	36.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	691	13.4	38.8	56.1	19.4	34.6	5.2	137.2	101.6	60.5	33.9
S.D.	30	0.3	1.2	1.9	0.8	0.4	1.1	26.8	24.4	5.4	4.8

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
1101	0.4	0.2	3.4	0.8	71.2	41.4	0.5	0.3	4.1	0.9	10.3
1102	0.8	0.2	2.2	0.9	50.7	34.7	0.7	0.2	2.0	0.8	11.4
1103	0.3	0.4	7.9	1.5	56.2	33.1	0.3	0.4	7.8	1.5	12.6
1109	0.3	0.3	2.8	0.5	92.0	34.4	0.5	0.4	3.7	0.7	12.1
1112	1.5	0.2	2.9	0.3	41.0	25.0	1.1	0.1	2.0	0.2	13.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.7	0.3	3.8	0.8	62.2	33.7	0.6	0.3	3.9	0.8	11.9
S.D.	0.5	0.1	2.3	0.5	19.9	5.8	0.3	0.1	2.4	0.5	1.1

Animal No.	APTT s	FIB mg/dL
1101	12.3	472
1102	13.1	357
1103	16.1	312
1109	14.7	292
1112	13.6	276
n	5	5
Mean	14.0	342
S.D.	1.5	79

Appendix 6 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	704	13.5	39.3	55.8	19.2	34.5	4.7	114.9	126.7	69.3	24.5
2104	627	13.3	38.4	61.2	21.3	34.8	7.8	139.7	100.5	59.4	32.4
2108	674	13.2	38.2	56.7	19.6	34.6	5.8	118.5	101.5	62.2	33.7
2110	613	12.4	36.0	58.8	20.3	34.5	6.5	131.9	68.4	63.9	30.8
2112	670	14.0	39.9	59.6	20.8	35.0	4.9	135.7	92.4	62.0	34.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	658	13.3	38.4	58.4	20.2	34.7	5.9	128.1	97.9	63.4	31.1
S.D.	37	0.6	1.5	2.2	0.9	0.2	1.3	10.9	20.9	3.7	3.9

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
2101	0.6	0.1	4.7	0.8	87.8	31.0	0.8	0.2	5.9	1.0	12.8
2104	1.0	0.2	5.5	1.4	59.8	32.6	1.1	0.2	5.5	1.4	13.0
2108	0.7	0.2	2.5	0.7	63.2	34.2	0.7	0.2	2.5	0.7	12.6
2110	0.6	0.2	4.0	0.5	43.7	21.1	0.4	0.1	2.7	0.4	10.3
2112	0.8	0.2	2.4	0.4	57.3	31.6	0.7	0.2	2.2	0.4	10.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.7	0.2	3.8	0.8	62.4	30.1	0.7	0.2	3.8	0.8	11.8
S.D.	0.2	0.0	1.4	0.4	16.0	5.2	0.3	0.0	1.8	0.4	1.3

Animal No.	APTT s	FIB mg/dL
2101	15.5	256
2104	15.7	237
2108	15.8	362
2110	13.8	260
2112	12.9	280
n	5	5
Mean	14.7	279
S.D.	1.3	49

Appendix 6 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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 %
3102	643	13.3	39.3	61.1	20.7	33.9	9.6	96.1	109.2	55.6	37.9
3103	674	13.3	38.7	57.4	19.8	34.4	6.9	116.3	81.4	58.9	34.2
3105	745	13.9	41.0	55.1	18.7	33.9	4.0	92.9	88.0	57.5	36.2
3106	673	13.4	38.2	56.7	19.9	35.1	5.0	174.6	86.6	61.0	35.6
3107	665	13.6	39.4	59.3	20.4	34.4	7.8	148.4	101.7	64.1	33.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	680	13.5	39.3	57.9	19.9	34.3	6.7	125.7	93.4	59.4	35.4
S.D.	38	0.3	1.1	2.3	0.8	0.5	2.2	35.2	11.6	3.3	1.9

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
3102	0.4	0.2	4.5	1.4	60.7	41.4	0.5	0.2	4.9	1.5	10.4
3103	0.4	0.1	5.4	1.0	48.0	27.9	0.3	0.1	4.4	0.8	12.3
3105	0.4	0.1	5.1	0.7	50.6	31.8	0.4	0.1	4.5	0.6	12.3
3106	0.7	0.2	2.2	0.3	52.8	30.9	0.6	0.2	1.9	0.3	12.9
3107	0.2	0.2	2.0	0.5	65.2	33.6	0.2	0.2	2.0	0.5	12.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.4	0.2	3.8	0.8	55.5	33.1	0.4	0.2	3.5	0.7	12.0
S.D.	0.2	0.1	1.6	0.4	7.2	5.1	0.2	0.1	1.5	0.5	1.0

Animal No.	APTT s	FIB mg/dL
3102	8.5	353
3103	15.6	255
3105	14.7	280
3106	15.0	294
3107	15.4	248
n	5	5
Mean	13.8	286
S.D.	3.0	42

Appendix 6 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	660	12.5	37.1	56.2	18.9	33.7	6.4	133.2	113.5	45.8	50.0
4103	728	13.9	40.8	56.0	19.1	34.1	4.5	126.0	134.5	67.0	28.6
4104	699	14.2	40.0	57.2	20.3	35.4	4.3	128.5	91.4	60.7	34.4
4111	622	12.7	37.3	60.0	20.4	34.0	9.3	138.5	152.5	66.4	28.5
4112	639	13.2	38.4	60.2	20.7	34.4	6.9	136.3	83.7	71.0	24.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	670	13.3	38.7	57.9	19.9	34.3	6.3	132.5	115.1	62.2	33.1
S.D.	44	0.7	1.6	2.0	0.8	0.7	2.0	5.2	28.8	9.9	10.1

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	2.8	0.5	51.9	56.7	0.8	0.3	3.2	0.5	12.7
4103	0.7	0.3	2.9	0.5	90.1	38.5	0.9	0.4	3.9	0.7	12.2
4104	0.5	0.1	3.6	0.6	55.5	31.5	0.5	0.1	3.3	0.6	13.9
4111	0.5	0.3	3.3	1.0	101.3	43.4	0.8	0.4	5.1	1.5	11.5
4112	0.6	0.2	3.4	0.8	59.4	20.1	0.5	0.2	2.9	0.6	11.6
n	5	5	5	5	5	5	5	5	5	5	5
Mean	0.6	0.2	3.2	0.7	71.6	38.0	0.7	0.3	3.7	0.8	12.4
S.D.	0.1	0.1	0.3	0.2	22.5	13.6	0.2	0.1	0.9	0.4	1.0

Animal No.	APTT s	FIB mg/dL
4102	15.8	238
4103	15.3	261
4104	16.3	286
4111	13.0	271
4112	12.5	237
n	5	5
Mean	14.6	259
S.D.	1.7	21

Appendix 6 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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	754	14.6	41.1	54.5	19.4	35.5	2.6	97.9	61.6	65.3	30.8
5102	802	15.7	43.9	54.7	19.5	35.7	2.4	109.1	37.6	76.4	18.8
5103	740	14.6	41.7	56.4	19.7	35.0	1.9	104.0	40.1	63.5	33.0
5104	741	15.3	42.8	57.8	20.6	35.6	2.7	102.7	39.8	81.1	14.4
5105	790	15.2	43.7	55.3	19.2	34.7	2.3	95.9	29.8	75.0	20.8
n	5	5	5	5	5	5	5	5	5	5	5
Mean	765	15.1	42.6	55.7	19.7	35.3	2.4	101.9	41.8	72.3	23.6
S.D.	29	0.5	1.2	1.4	0.5	0.4	0.3	5.2	11.8	7.5	8.0

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
5101	1.9	0.1	1.8	0.1	40.2	18.9	1.2	0.0	1.1	0.1	12.6
5102	1.4	0.1	2.9	0.4	28.7	7.1	0.5	0.1	1.1	0.2	13.5
5103	1.4	0.1	2.0	0.1	25.4	13.2	0.5	0.0	0.8	0.0	14.1
5104	2.0	0.2	1.9	0.3	32.3	5.7	0.8	0.1	0.8	0.1	13.2
5105	0.9	0.3	2.4	0.6	22.3	6.2	0.3	0.1	0.7	0.2	13.3
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.5	0.2	2.2	0.3	29.8	10.2	0.7	0.1	0.9	0.1	13.3
S.D.	0.4	0.1	0.5	0.2	6.9	5.7	0.4	0.1	0.2	0.1	0.5

Animal No.	APTT s	FIB mg/dL
5101	15.8	196
5102	14.9	244
5103	16.1	225
5104	15.1	200
5105	13.8	173
n	5	5
Mean	15.1	208
S.D.	0.9	27

Appendix 6 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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	776	15.0	42.7	55.0	19.4	35.2	2.8	115.4	42.5	66.0	30.3
6102	767	14.7	42.5	55.3	19.2	34.7	2.0	110.8	72.9	84.0	11.1
6103	829	15.6	44.7	54.0	18.8	34.8	2.7	97.5	96.2	83.8	11.9
6104	798	15.4	43.2	54.2	19.3	35.7	2.2	110.2	50.1	85.8	9.9
6105	757	14.8	42.0	55.5	19.5	35.2	2.2	117.7	79.6	86.3	10.1
n	5	5	5	5	5	5	5	5	5	5	5
Mean	785	15.1	43.0	54.8	19.2	35.1	2.4	110.3	68.3	81.2	14.7
S.D.	29	0.4	1.0	0.7	0.3	0.4	0.3	7.8	21.9	8.6	8.8

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
6101	1.1	0.1	2.1	0.4	28.0	12.9	0.5	0.1	0.9	0.1	14.1
6102	1.6	0.3	2.0	1.0	61.2	8.1	1.1	0.2	1.5	0.7	13.5
6103	1.1	0.3	2.3	0.6	80.6	11.5	1.0	0.3	2.2	0.5	13.9
6104	0.9	0.2	2.5	0.7	43.0	5.0	0.4	0.1	1.2	0.4	14.3
6105	0.7	0.2	1.9	0.8	68.7	8.0	0.6	0.1	1.5	0.6	15.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.1	0.2	2.2	0.7	56.3	9.1	0.7	0.2	1.5	0.5	14.2
S.D.	0.3	0.1	0.2	0.2	20.9	3.1	0.3	0.1	0.5	0.2	0.7

Animal No.	APTT s	FIB mg/dL
6101	15.1	218
6102	14.4	210
6103	16.2	192
6104	15.4	181
6105	13.8	190
n	5	5
Mean	15.0	198
S.D.	0.9	15

Appendix 6 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Male Dose : Ethyl Stearate 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	846	15.6	44.9	53.1	18.5	34.8	1.4	94.7	78.0	76.6	19.0
1009	875	15.4	45.3	51.8	17.6	34.0	1.9	95.1	79.6	79.6	15.0
1010	836	15.2	44.7	53.5	18.1	33.9	1.6	105.7	67.1	77.1	18.0
1011	862	15.9	47.1	54.6	18.4	33.8	1.6	91.3	40.3	76.2	19.2
1012	865	15.4	45.7	52.8	17.8	33.7	1.7	85.9	67.8	83.7	12.2
n	5	5	5	5	5	5	5	5	5	5	5
Mean	857	15.5	45.5	53.2	18.1	34.0	1.6	94.5	66.6	78.6	16.7
S.D.	16	0.3	1.0	1.0	0.4	0.4	0.2	7.2	15.8	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
1008	1.6	0.3	2.2	0.4	59.7	14.9	1.2	0.2	1.7	0.3	13.2
1009	0.8	0.4	3.5	0.7	63.3	12.0	0.7	0.3	2.8	0.6	13.7
1010	1.1	0.1	2.9	0.8	51.7	12.1	0.7	0.0	1.9	0.5	13.1
1011	1.5	0.1	2.1	0.9	30.7	7.7	0.6	0.0	0.9	0.3	12.4
1012	1.4	0.2	2.1	0.5	56.7	8.3	0.9	0.1	1.4	0.4	11.8
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.3	0.2	2.6	0.7	52.4	11.0	0.8	0.1	1.7	0.4	12.8
S.D.	0.3	0.1	0.6	0.2	12.9	3.0	0.2	0.1	0.7	0.1	0.7

Animal No.	APTT s	FIB mg/dL
1008	18.1	296
1009	16.7	296
1010	18.0	324
1011	15.9	271
1012	12.7	226
n	5	5
Mean	16.3	283
S.D.	2.2	37

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Appendix 6 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Male Dose : Ethyl Stearate 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	836	15.3	44.8	53.6	18.3	34.1	1.5	88.4	110.9	74.1	19.5
4009	889	16.0	46.0	51.8	18.0	34.7	0.9	93.0	84.6	86.4	9.3
4010	877	16.3	46.3	52.8	18.6	35.2	1.4	95.7	68.0	70.2	24.5
4011	830	14.3	42.7	51.5	17.2	33.5	1.1	98.4	42.8	86.0	8.5
4012	836	15.1	44.2	52.9	18.1	34.1	1.8	99.5	80.0	71.5	21.5
n	5	5	5	5	5	5	5	5	5	5	5
Mean	854	15.4	44.8	52.5	18.0	34.3	1.3	95.0	77.3	77.6	16.7
S.D.	27	0.8	1.5	0.9	0.5	0.6	0.4	4.5	24.8	7.9	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
4008	1.9	0.3	3.6	0.7	82.2	21.6	2.1	0.3	3.9	0.8	14.5
4009	1.4	0.3	2.1	0.6	73.0	7.8	1.2	0.2	1.8	0.5	20.8
4010	1.6	0.3	2.9	0.5	47.7	16.7	1.1	0.2	1.9	0.4	11.5
4011	1.7	0.3	3.0	0.5	36.8	3.6	0.7	0.1	1.3	0.2	13.7
4012	2.0	0.1	4.2	0.6	57.2	17.2	1.6	0.1	3.4	0.5	14.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.7	0.3	3.2	0.6	59.4	13.4	1.3	0.2	2.5	0.5	14.9
S.D.	0.2	0.1	0.8	0.1	18.4	7.4	0.5	0.1	1.1	0.2	3.5

Animal No.	APTT s	FIB mg/dL
4008	16.0	317
4009	22.3	321
4010	16.7	247
4011	17.3	261
4012	16.4	301
n	5	5
Mean	17.7	289
S.D.	2.6	34

Appendix 6 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 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	786	15.0	43.4	55.2	19.0	34.4	2.1	95.1	36.2	65.7	30.0
5107	768	15.4	44.5	58.0	20.1	34.6	1.9	81.0	45.7	80.4	14.5
5108	761	14.1	41.7	54.8	18.5	33.8	2.4	96.0	48.5	76.6	18.4
5109	775	14.7	42.9	55.4	18.9	34.2	2.3	101.4	31.7	81.6	14.5
5110	732	14.1	39.6	54.1	19.2	35.5	1.4	105.1	30.4	80.9	13.0
n	5	5	5	5	5	5	5	5	5	5	5
Mean	764	14.7	42.4	55.5	19.1	34.5	2.0	95.7	38.5	77.0	18.1
S.D.	20	0.6	1.9	1.5	0.6	0.6	0.4	9.2	8.2	6.6	7.0

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
5106	1.5	0.2	2.2	0.3	23.8	10.9	0.5	0.1	0.8	0.1	14.3
5107	1.1	0.1	3.1	0.8	36.7	6.6	0.5	0.1	1.4	0.3	13.0
5108	0.8	0.2	3.2	0.8	37.1	8.9	0.4	0.1	1.5	0.4	14.2
5109	1.7	0.2	1.5	0.5	25.8	4.6	0.6	0.1	0.5	0.1	14.2
5110	1.5	0.2	3.3	1.1	24.6	4.0	0.5	0.1	1.0	0.3	13.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.3	0.2	2.7	0.7	29.6	7.0	0.5	0.1	1.0	0.2	13.8
S.D.	0.4	0.0	0.8	0.3	6.7	2.9	0.1	0.0	0.4	0.1	0.6

Animal No.	APTT s	FIB mg/dL
5106	17.6	199
5107	15.9	184
5108	14.4	181
5109	13.9	191
5110	14.3	185
n	5	5
Mean	15.2	188
S.D.	1.5	7

Appendix 6 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 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	783	14.9	42.1	53.8	19.1	35.4	2.0	116.4	32.1	68.8	27.0
6107	807	15.1	43.9	54.4	18.7	34.3	1.7	102.9	52.3	81.6	11.3
6108	777	14.2	40.5	52.1	18.2	35.0	2.0	134.4	66.2	81.9	13.9
6109	804	14.9	42.8	53.3	18.5	34.8	1.9	112.1	50.4	76.6	19.8
6110	764	15.2	43.2	56.6	19.9	35.2	2.1	101.2	54.7	71.1	24.4
n	5	5	5	5	5	5	5	5	5	5	5
Mean	787	14.9	42.5	54.0	18.9	34.9	1.9	113.4	51.1	76.0	19.3
S.D.	18	0.4	1.3	1.7	0.7	0.4	0.2	13.3	12.3	6.0	6.7

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
6106	2.1	0.2	1.8	0.1	22.1	8.7	0.7	0.1	0.6	0.0	12.2
6107	2.0	0.2	4.0	1.0	42.7	5.9	1.0	0.1	2.1	0.5	12.1
6108	1.3	0.2	2.2	0.5	54.2	9.2	0.8	0.1	1.5	0.3	10.8
6109	1.8	0.2	0.9	0.8	38.6	10.0	0.9	0.1	0.5	0.4	11.2
6110	2.1	0.1	1.7	0.7	38.8	13.3	1.1	0.1	0.9	0.4	14.8
n	5	5	5	5	5	5	5	5	5	5	5
Mean	1.9	0.2	2.1	0.6	39.3	9.4	0.9	0.1	1.1	0.3	12.2
S.D.	0.3	0.0	1.2	0.3	11.5	2.7	0.2	0.0	0.7	0.2	1.6

Animal No.	APTT s	FIB mg/dL
6106	13.1	199
6107	15.1	195
6108	12.8	222
6109	11.4	215
6110	15.6	206
n	5	5
Mean	13.6	207
S.D.	1.7	11

Appendix 6 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Hematology Stage : Not copulated

Sex : Female Dose : Ethyl Stearate 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 %
1110	834	15.4	42.7	51.2	18.5	36.1	1.5	93.1	79.3	83.8	12.4
n	1	1	1	1	1	1	1	1	1	1	1
Mean	834	15.4	42.7	51.2	18.5	36.1	1.5	93.1	79.3	83.8	12.4
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
1110	1.5	0.1	1.7	0.5	66.5	9.8	1.2	0.1	1.3	0.4	14.1
n	1	1	1	1	1	1	1	1	1	1	1
Mean	1.5	0.1	1.7	0.5	66.5	9.8	1.2	0.1	1.3	0.4	14.1
S.D.											

Animal No.	APTT s	FIB mg/dL
1110	15.9	259
n	1	1
Mean	15.9	259
S.D.		

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Hematology

Stage : Not copulated

Sex : Female

Dose : Ethyl Stearate 100 mg/kg

Species : Rat

Animal No.	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 %	NEUT %
2111	859	15.8	42.7	49.7	18.4	37.1	1.4	116.3	48.9	67.9	25.6
n	1	1	1	1	1	1	1	1	1	1	1
Mean	859	15.8	42.7	49.7	18.4	37.1	1.4	116.3	48.9	67.9	25.6
S.D.											

Animal No.	EOS %	BASO %	MONO %	LUC %	#LYMP 10^2/μL	#NEUT 10^2/μL	#EOS 10^2/μL	#BASO 10^2/μL	#MONO 10^2/μL	#LUC 10^2/μL	PT s
2111	1.5	0.1	4.7	0.3	33.2	12.5	0.7	0.1	2.3	0.1	13.0
n	1	1	1	1	1	1	1	1	1	1	1
Mean	1.5	0.1	4.7	0.3	33.2	12.5	0.7	0.1	2.3	0.1	13.0
S.D.											

Animal No.	APTT s	FIB mg/dL
2111	18.1	260
n	1	1
Mean	18.1	260
S.D.		

Appendix 7 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	68	40	54	1	411	6.8	62	25	92	0.1	118
1002	48	23	46	1	393	9.8	49	85	94	0.1	134
1003	68	38	106	1	485	28.4	64	46	105	0.1	174
1004	55	27	38	1	497	24.2	61	46	92	0.1	126
1005	61	31	36	1	347	14.0	81	61	120	0.1	111
n	5	5	5	5	5	5	5	5	5	5	5
Mean	60	32	56	1	427	16.6	63	53	101	0.1	133
S.D.	9	7	29	0	63	9.3	11	22	12	0.0	25

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	17	0.36	142	3.9	108	10.0	5.6	5.7	3.0	1.1
1002	10	0.27	143	4.3	108	10.4	4.8	5.9	3.1	1.1
1003	16	0.24	145	4.4	107	10.4	5.6	5.8	3.1	1.1
1004	13	0.31	144	4.9	107	10.4	6.2	5.9	3.2	1.2
1005	11	0.25	143	4.6	109	10.4	6.2	5.7	3.2	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	13	0.29	143	4.4	108	10.3	5.7	5.8	3.1	1.2
S.D.	3	0.05	1	0.4	1	0.2	0.6	0.1	0.1	0.1

Appendix 7 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	56	38	49	0	454	17.8	58	72	89	0.1	171
2002	70	45	50	1	570	17.8	46	34	77	0.1	103
2003	63	62	75	1	463	21.5	60	54	105	0.1	162
2004	51	33	33	0	392	6.3	49	49	84	0.1	133
2005	57	29	44	0	668	5.6	54	13	74	0.1	120
n	5	5	5	5	5	5	5	5	5	5	5
Mean	59	41	50	0	509	13.8	53	44	86	0.1	138
S.D.	7	13	15	1	109	7.3	6	22	12	0.0	28

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	12	0.33	145	4.8	107	9.9	5.9	5.8	3.0	1.1
2002	14	0.28	145	4.3	107	10.0	5.4	5.9	3.1	1.1
2003	23	0.33	142	5.2	108	10.1	5.4	5.9	3.0	1.0
2004	15	0.30	144	4.6	108	10.0	6.4	5.4	3.1	1.3
2005	11	0.27	144	4.7	107	9.9	6.4	5.8	3.1	1.1
n	5	5	5	5	5	5	5	5	5	5
Mean	15	0.30	144	4.7	107	10.0	5.9	5.8	3.1	1.1
S.D.	5	0.03	1	0.3	1	0.1	0.5	0.2	0.1	0.1

Appendix 7 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	58	33	61	0	409	10.4	57	33	89	0.1	193
3002	63	35	65	1	407	23.2	81	82	117	0.1	140
3003	72	50	54	1	333	15.6	52	15	72	0.1	135
3004	77	37	90	0	407	22.2	80	82	117	0.1	125
3005	54	33	36	1	377	11.6	62	73	101	0.1	133
n	5	5	5	5	5	5	5	5	5	5	5
Mean	65	38	61	1	387	16.6	66	57	99	0.1	145
S.D.	10	7	20	1	33	5.9	13	31	19	0.0	27

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	10	0.29	144	4.7	107	9.5	5.4	5.6	3.2	1.3
3002	13	0.27	144	4.6	108	10.2	4.7	6.1	3.1	1.0
3003	11	0.31	143	4.3	106	9.9	5.3	5.5	2.9	1.1
3004	11	0.26	145	4.7	107	10.3	5.8	5.8	3.2	1.2
3005	12	0.28	145	4.6	108	10.4	6.5	5.5	3.0	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	11	0.28	144	4.6	107	10.1	5.5	5.7	3.1	1.2
S.D.	1	0.02	1	0.2	1	0.4	0.7	0.3	0.1	0.1

Appendix 7 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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
4001	50	29	51	1	325	12.7	76	42	116	0.1	128
4002	57	35	53	0	453	9.5	65	67	104	0.1	139
4003	69	31	42	1	261	7.9	57	57	89	0.1	159
4004	63	43	44	0	539	17.3	69	14	99	0.1	110
4005	62	41	38	0	549	24.1	48	30	71	0.1	146
n	5	5	5	5	5	5	5	5	5	5	5
Mean	60	36	46	0	425	14.3	63	42	96	0.1	136
S.D.	7	6	6	1	129	6.5	11	21	17	0.0	19

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
4001	14	0.26	144	4.2	109	10.0	5.2	5.8	3.1	1.1
4002	11	0.28	143	4.8	107	9.9	5.6	5.3	2.9	1.2
4003	11	0.24	143	4.6	107	9.9	6.0	5.5	2.9	1.1
4004	15	0.32	144	4.5	107	10.4	5.9	5.7	2.9	1.0
4005	14	0.29	144	4.1	109	10.1	5.5	5.5	3.0	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	13	0.28	144	4.4	108	10.1	5.6	5.6	3.0	1.1
S.D.	2	0.03	1	0.3	1	0.2	0.3	0.2	0.1	0.1

Appendix 7 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	92	53	61	0	519	29.1	50	53	95	0.1	111
1102	66	46	53	0	296	28.7	78	72	152	0.1	118
1103	70	49	41	0	228	12.7	42	77	96	0.1	111
1109	74	51	46	0	280	70.8	43	31	83	0.1	110
1112	58	39	34	1	225	7.4	49	38	94	0.1	111
n	5	5	5	5	5	5	5	5	5	5	5
Mean	72	48	47	0	310	29.7	52	54	104	0.1	112
S.D.	13	5	10	0	121	24.9	15	20	27	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
1101	23	0.39	143	4.0	103	11.5	8.8	5.7	3.1	1.2
1102	19	0.34	142	4.2	103	10.9	8.7	5.6	3.2	1.3
1103	17	0.28	142	4.6	105	11.1	8.7	5.8	3.1	1.1
1109	22	0.34	144	3.3	105	10.7	9.0	5.6	3.0	1.2
1112	15	0.28	144	4.4	106	10.9	8.6	5.6	3.1	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	19	0.33	143	4.1	104	11.0	8.8	5.7	3.1	1.2
S.D.	3	0.05	1	0.5	1	0.3	0.2	0.1	0.1	0.1

Appendix 7 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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
2101	68	47	54	1	310	20.9	59	85	115	0.1	127
2104	72	60	49	1	309	13.6	46	59	94	0.1	111
2108	67	47	33	0	190	9.8	43	49	85	0.1	120
2110	67	49	39	0	253	55.9	89	70	152	0.1	110
2112	66	60	50	0	598	25.0	71	40	122	0.1	123
n	5	5	5	5	5	5	5	5	5	5	5
Mean	68	53	45	0	332	25.0	62	61	114	0.1	118
S.D.	2	7	9	1	157	18.3	19	18	26	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
2101	15	0.32	142	4.4	104	11.0	9.2	5.7	3.3	1.4
2104	24	0.40	142	4.4	106	11.0	7.7	5.7	3.1	1.2
2108	17	0.35	139	4.2	103	10.7	6.9	5.7	3.1	1.2
2110	20	0.35	141	4.1	103	11.2	7.6	6.4	3.9	1.6
2112	19	0.38	143	3.7	105	10.9	8.3	5.8	3.3	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	19	0.36	141	4.2	104	11.0	7.9	5.9	3.3	1.3
S.D.	3	0.03	2	0.3	1	0.2	0.9	0.3	0.3	0.2

Appendix 7 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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
3102	70	60	54	1	213	14.0	55	107	126	0.1	120
3103	59	41	46	0	216	9.3	59	104	109	0.1	119
3105	55	45	28	1	333	26.8	63	70	118	0.1	119
3106	71	39	50	1	532	25.9	64	65	117	0.1	126
3107	64	63	34	0	237	33.8	72	58	124	0.1	130
n	5	5	5	5	5	5	5	5	5	5	5
Mean	64	50	42	1	306	22.0	63	81	119	0.1	123
S.D.	7	11	11	1	135	10.0	6	23	7	0.0	5

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
3102	23	0.35	143	4.3	109	11.2	7.2	5.5	3.3	1.5
3103	14	0.28	142	4.1	104	10.7	7.8	5.5	3.0	1.2
3105	16	0.28	142	3.7	106	11.2	6.9	5.8	3.2	1.2
3106	20	0.37	142	3.7	103	11.0	8.1	6.0	3.4	1.3
3107	20	0.31	144	4.4	105	10.8	7.8	5.8	3.3	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	19	0.32	143	4.0	105	11.0	7.6	5.7	3.2	1.3
S.D.	4	0.04	1	0.3	2	0.2	0.5	0.2	0.2	0.1

Appendix 7 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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
4102	79	41	68	1	151	19.8	52	31	102	0.1	95
4103	63	50	35	1	250	47.9	63	48	114	0.1	116
4104	67	45	108	1	225	74.5	68	61	121	0.1	128
4111	57	43	37	1	259	18.8	74	64	132	0.1	146
4112	56	58	52	1	389	55.7	69	140	148	0.1	122
n	5	5	5	5	5	5	5	5	5	5	5
Mean	64	47	60	1	255	43.3	65	69	123	0.1	121
S.D.	9	7	30	0	86	24.0	8	42	18	0.0	19

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
4102	13	0.31	142	4.4	107	10.6	7.1	5.9	3.2	1.2
4103	20	0.36	143	4.1	105	11.8	10.5	5.9	3.1	1.1
4104	17	0.32	143	4.1	108	11.1	8.8	5.6	3.2	1.3
4111	21	0.34	142	4.7	104	11.5	10.5	6.0	3.3	1.2
4112	15	0.24	143	4.3	105	11.4	8.7	6.0	3.3	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	17	0.31	143	4.3	106	11.3	9.1	5.9	3.2	1.2
S.D.	3	0.05	1	0.2	2	0.5	1.4	0.2	0.1	0.1

Appendix 7 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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	58	27	45	1	224	64.5	57	38	133	0.1	140
5102	59	39	43	0	525	16.8	73	22	136	0.1	144
5103	52	35	49	1	325	65.9	69	37	144	0.1	144
5104	42	33	35	1	170	18.6	55	28	116	0.1	134
5105	43	18	33	1	225	28.5	68	22	145	0.1	138
n	5	5	5	5	5	5	5	5	5	5	5
Mean	51	30	41	1	294	38.9	64	29	135	0.1	140
S.D.	8	8	7	0	141	24.5	8	8	12	0.0	4

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	19	0.36	139	4.0	106	10.2	4.1	6.3	3.5	1.3
5102	16	0.37	143	4.0	108	10.4	4.2	6.1	3.5	1.3
5103	16	0.32	142	4.1	111	10.1	3.3	6.2	3.7	1.5
5104	15	0.28	142	4.2	108	10.5	4.5	6.3	3.8	1.5
5105	16	0.29	143	4.2	109	10.5	5.2	6.7	4.1	1.6
n	5	5	5	5	5	5	5	5	5	5
Mean	16	0.32	142	4.1	108	10.3	4.3	6.3	3.7	1.4
S.D.	2	0.04	2	0.1	2	0.2	0.7	0.2	0.2	0.1

Appendix 7 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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
6101	69	44	38	0	356	25.6	57	15	109	0.1	110
6102	57	35	48	1	258	20.8	73	30	133	0.1	115
6103	54	48	41	1	494	35.2	74	30	132	0.1	146
6104	54	30	40	1	177	25.5	66	23	119	0.1	127
6105	49	18	37	1	258	23.8	63	26	126	0.1	128
n	5	5	5	5	5	5	5	5	5	5	5
Mean	57	35	41	1	309	26.2	67	25	124	0.1	125
S.D.	8	12	4	0	122	5.4	7	6	10	0.0	14

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
6101	16	0.28	144	4.2	112	9.8	3.8	5.9	3.3	1.3
6102	17	0.37	142	4.0	108	9.8	4.0	5.8	3.2	1.2
6103	18	0.29	142	4.2	109	10.0	3.9	5.9	3.4	1.4
6104	12	0.24	143	4.3	107	9.9	4.0	5.7	3.4	1.5
6105	14	0.31	142	4.2	110	10.4	4.3	6.1	3.5	1.3
n	5	5	5	5	5	5	5	5	5	5
Mean	15	0.30	143	4.2	109	10.0	4.0	5.9	3.4	1.3
S.D.	2	0.05	1	0.1	2	0.2	0.2	0.1	0.1	0.1

Appendix 7 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of recovery

Sex : Male Dose : Ethyl Stearate 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	38	45	1	363	11.9	64	81	104	0.1	137
1009	57	39	48	0	444	30.2	53	71	89	0.1	179
1010	65	37	42	1	284	20.0	71	60	105	0.1	144
1011	54	31	37	0	263	6.2	72	34	102	0.1	133
1012	56	32	32	0	311	5.1	62	84	99	0.1	153
n	5	5	5	5	5	5	5	5	5	5	5
Mean	58	35	41	0	333	14.7	64	66	100	0.1	149
S.D.	4	4	6	1	72	10.5	8	20	6	0.0	18

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	16	0.24	142	4.7	106	9.9	5.7	6.0	3.1	1.1
1009	19	0.29	142	4.6	105	10.0	5.0	6.2	3.2	1.1
1010	22	0.34	143	4.5	108	10.2	5.0	5.6	2.8	1.0
1011	19	0.30	143	4.9	109	10.1	5.3	5.9	3.1	1.1
1012	15	0.23	144	4.2	109	10.4	4.9	5.7	3.0	1.1
n	5	5	5	5	5	5	5	5	5	5
Mean	18	0.28	143	4.6	107	10.1	5.2	5.9	3.0	1.1
S.D.	3	0.05	1	0.3	2	0.2	0.3	0.2	0.2	0.0

Appendix 7 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of recovery

Sex : Male Dose : Ethyl Stearate 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	57	34	45	0	344	19.8	62	75	98	0.1	187
4009	57	26	32	0	250	7.5	58	58	94	0.1	135
4010	64	40	32	1	340	13.9	57	34	93	0.1	139
4011	49	36	36	0	285	33.5	49	31	81	0.1	128
4012	63	37	33	1	424	21.7	54	32	85	0.1	127
n	5	5	5	5	5	5	5	5	5	5	5
Mean	58	35	36	0	329	19.3	56	46	90	0.1	143
S.D.	6	5	6	1	66	9.7	5	20	7	0.0	25

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	0.29	143	4.3	108	9.7	5.4	5.7	2.9	1.0
4009	17	0.35	143	4.6	108	9.7	4.6	5.7	3.0	1.1
4010	17	0.29	142	4.7	108	9.9	5.2	5.8	3.2	1.2
4011	19	0.28	143	4.4	108	9.7	5.3	5.5	3.1	1.3
4012	20	0.30	143	4.4	109	9.9	4.9	5.9	3.0	1.0
n	5	5	5	5	5	5	5	5	5	5
Mean	18	0.30	143	4.5	108	9.8	5.1	5.7	3.0	1.1
S.D.	1	0.03	0	0.2	0	0.1	0.3	0.1	0.1	0.1

Appendix 7 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 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	55	22	35	1	165	10.5	62	29	123	0.1	143
5107	76	32	35	1	208	15.8	48	21	103	0.1	141
5108	54	36	45	0	92	13.4	85	21	157	0.1	129
5109	55	28	30	0	140	15.2	73	24	146	0.1	137
5110	49	23	27	0	152	6.9	52	22	115	0.1	131
n	5	5	5	5	5	5	5	5	5	5	5
Mean	58	28	34	0	151	12.4	64	23	129	0.1	136
S.D.	10	6	7	1	42	3.7	15	3	22	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
5106	18	0.36	141	4.2	109	9.9	3.5	6.1	3.3	1.2
5107	19	0.35	142	4.2	110	10.1	4.2	5.9	3.4	1.4
5108	21	0.34	142	4.1	110	10.3	4.0	6.9	4.0	1.4
5109	13	0.27	143	3.6	111	10.1	4.1	6.1	3.7	1.5
5110	13	0.31	143	4.4	109	10.5	5.0	6.5	4.0	1.6
n	5	5	5	5	5	5	5	5	5	5
Mean	17	0.33	142	4.1	110	10.2	4.2	6.3	3.7	1.4
S.D.	4	0.04	1	0.3	1	0.2	0.5	0.4	0.3	0.1

Appendix 7 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 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	58	27	37	1	196	15.8	79	18	143	0.1	123
6107	56	25	38	1	135	13.9	70	31	146	0.1	157
6108	52	33	39	1	153	14.2	90	39	157	0.1	139
6109	54	20	31	1	189	8.2	93	24	169	0.1	125
6110	62	24	40	1	194	10.6	63	13	118	0.1	143
n	5	5	5	5	5	5	5	5	5	5	5
Mean	56	26	37	1	173	12.5	79	25	147	0.1	137
S.D.	4	5	4	0	28	3.1	13	10	19	0.0	14

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	19	0.35	143	4.1	110	9.8	3.4	6.1	3.5	1.3
6107	20	0.32	142	3.8	110	10.3	5.4	6.3	3.7	1.4
6108	18	0.32	142	4.2	109	10.2	4.5	6.1	3.3	1.2
6109	17	0.34	144	3.8	110	10.2	4.4	6.5	3.6	1.2
6110	15	0.35	143	3.8	109	10.2	5.1	6.5	3.6	1.2
n	5	5	5	5	5	5	5	5	5	5
Mean	18	0.34	143	3.9	110	10.1	4.6	6.3	3.5	1.3
S.D.	2	0.02	1	0.2	1	0.2	0.8	0.2	0.2	0.1

Appendix 7 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Not copulated

Sex : Female Dose : Ethyl Stearate 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
1110	52	23	32	1	364	35.3	60	28	108	0.1	127
n	1	1	1	1	1	1	1	1	1	1	1
Mean	52	23	32	1	364	35.3	60	28	108	0.1	127
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	
1110	16	0.43	142	3.5	105	10.3	4.2	6.2	3.3	1.1
n	1	1	1	1	1	1	1	1	1	1
Mean	16	0.43	142	3.5	105	10.3	4.2	6.2	3.3	1.1
S.D.										

Appendix 7 - 16 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Blood chemistry Stage : Not copulated

Sex : Female Dose : Ethyl Stearate 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
2111	60	37	38	2	181	10.5	71	47	131	0.1	138
n	1	1	1	1	1	1	1	1	1	1	1
Mean	60	37	38	2	181	10.5	71	47	131	0.1	138
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	
2111	18	0.43	142	4.0	99	11.1	5.2	6.9	3.8	1.2
n	1	1	1	1	1	1	1	1	1	1
Mean	18	0.43	142	4.0	99	11.1	5.2	6.9	3.8	1.2
S.D.										

Appendix 8 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	531	2.19	0.41	13.6	2.6	10.1	1.9	10.0	1.9
1002	555	2.12	0.38	17.0	3.1	10.9	2.0	7.7	1.4
1003	578	2.15	0.37	12.7	2.2	9.5	1.6	10.5	1.8
1004	531	2.18	0.41	14.3	2.7	8.5	1.6	8.8	1.7
1005	576	2.21	0.38	12.5	2.2	12.3	2.1	9.2	1.6
1006	564	2.15	0.38	13.0	2.3	8.7	1.5	7.6	1.3
1007	555	2.15	0.39	11.1	2.0	9.1	1.6	11.0	2.0
n	7	7	7	7	7	7	7	7	7
Mean	556	2.16	0.39	13.5	2.4	9.9	1.8	9.3	1.7
S.D.	19	0.03	0.02	1.9	0.4	1.4	0.2	1.3	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
1001	20.1	3.8	308	58	1.53	0.29	13.84	2.61	0.77	0.15
1002	18.6	3.4	260	47	1.54	0.28	15.40	2.77	0.61	0.11
1003	20.0	3.5	231	40	1.68	0.29	17.13	2.96	0.61	0.11
1004	17.3	3.3	237	45	1.60	0.30	14.23	2.68	0.64	0.12
1005	21.5	3.7	500	87	1.69	0.29	15.75	2.73	0.91	0.16
1006	16.3	2.9	324	57	1.38	0.24	14.57	2.58	0.79	0.14
1007	20.1	3.6	326	59	1.66	0.30	14.72	2.65	0.80	0.14
n	7	7	7	7	7	7	7	7	7	7
Mean	19.1	3.5	312	56	1.58	0.28	15.09	2.71	0.73	0.13
S.D.	1.8	0.3	92	15	0.11	0.02	1.11	0.13	0.11	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
1001	1.59	0.30	1.72	0.32	3.31	0.62	28	5	31	6
1002	1.51	0.27	1.66	0.30	3.17	0.57	32	6	28	5
1003	1.84	0.32	2.08	0.36	3.92	0.68	26	4	27	5
1004	1.55	0.29	1.75	0.33	3.30	0.62	31	6	34	6
1005	1.71	0.30	1.96	0.34	3.67	0.64	33	6	35	6
1006	1.63	0.29	1.67	0.30	3.30	0.59	28	5	29	5
1007	1.59	0.29	1.81	0.33	3.40	0.61	23	4	28	5
n	7	7	7	7	7	7	7	7	7	7
Mean	1.63	0.29	1.81	0.33	3.44	0.62	29	5	30	5
S.D.	0.11	0.02	0.16	0.02	0.26	0.04	4	1	3	1

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	59	11	1.64	0.31	1.68	0.32	3.32	0.63	662	125
1002	60	11	1.67	0.30	1.71	0.31	3.38	0.61	661	119
1003	53	9	1.55	0.27	1.61	0.28	3.16	0.55	567	98
1004	65	12	1.70	0.32	1.73	0.33	3.43	0.65	686	129
1005	68	12	1.69	0.29	1.80	0.31	3.49	0.61	823	143
1006	57	10	1.76	0.31	1.82	0.32	3.58	0.63	656	116
1007	51	9	1.83	0.33	1.76	0.32	3.59	0.65	658	119
n	7	7	7	7	7	7	7	7	7	7
Mean	59	11	1.69	0.30	1.73	0.31	3.42	0.62	673	121
S.D.	6	1	0.09	0.02	0.07	0.02	0.15	0.03	76	14

	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	619	117	1281	241	1.27	0.24	2.28	0.43
1002	651	117	1312	236	1.13	0.20	1.53	0.28
1003	578	100	1145	198	1.16	0.20	1.93	0.33
1004	706	133	1392	262	1.53	0.29	2.03	0.38
1005	732	127	1555	270	1.14	0.20	1.69	0.29
1006	647	115	1303	231	1.07	0.19	2.13	0.38
1007	628	113	1286	232	1.33	0.24	1.71	0.31
n	7	7	7	7	7	7	7	7
Mean	652	117	1325	239	1.23	0.22	1.90	0.34
S.D.	52	11	125	23	0.16	0.04	0.27	0.06

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	538	2.06	0.38	12.4	2.3	5.5	1.0	5.6	1.0
2002	523	2.08	0.40	12.0	2.3	11.2	2.1	7.3	1.4
2003	537	2.13	0.40	12.5	2.3	13.6	2.5	12.4	2.3
2004	530	2.11	0.40	12.9	2.4	11.1	2.1	7.5	1.4
2005	499	2.42	0.48	13.1	2.6	12.1	2.4	9.3	1.9
2006	562	2.15	0.38	10.8	1.9	10.6	1.9	8.7	1.5
2007	550	2.10	0.38	14.7	2.7	12.2	2.2	11.6	2.1
2008	545	2.37	0.43	12.7	2.3	13.2	2.4	13.0	2.4
2009	584	2.14	0.37	13.6	2.3	16.2	2.8	13.2	2.3
2010	554	2.03	0.37	10.6	1.9	14.2	2.6	13.5	2.4
2011	569	2.32	0.41	12.3	2.2	15.3	2.7	16.1	2.8
2012	564	2.14	0.38	13.5	2.4	12.6	2.2	7.2	1.3
n	12	12	12	12	12	12	12	12	12
Mean	546	2.17	0.40	12.6	2.3	12.3	2.2	10.5	1.9
S.D.	23	0.13	0.03	1.1	0.2	2.7	0.5	3.3	0.6

	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	11.1	2.1	454	84	1.53	0.28	14.29	2.66	0.79	0.15
2002	18.5	3.5	305	58	1.40	0.27	13.62	2.60	0.81	0.15
2003	26.0	4.8	396	74	1.62	0.30	15.00	2.79	0.62	0.12
2004	18.6	3.5	239	45	1.59	0.30	13.12	2.48	0.70	0.13
2005	21.4	4.3	342	69	1.30	0.26	11.19	2.24	0.63	0.13
2006	19.3	3.4	261	46	1.36	0.24	14.58	2.59	0.69	0.12
2007	23.8	4.3	356	65	1.56	0.28	13.78	2.51	0.75	0.14
2008	26.2	4.8	106	19	1.62	0.30	12.57	2.31	0.69	0.13
2009	29.4	5.0	372	64	1.64	0.28	14.89	2.55	0.68	0.12
2010	27.7	5.0	295	53	1.60	0.29	14.27	2.58	0.73	0.13
2011	31.4	5.5	432	76	1.58	0.28	14.10	2.48	0.86	0.15
2012	19.8	3.5	415	74	1.65	0.29	13.99	2.48	0.77	0.14
n	12	12	12	12	12	12	12	12	12	12
Mean	22.8	4.1	331	61	1.54	0.28	13.78	2.52	0.73	0.13
S.D.	5.7	1.0	98	18	0.12	0.02	1.07	0.15	0.07	0.01

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	1.45	0.27	1.55	0.29	3.00	0.56	24	4	32	6
2002	1.65	0.32	1.80	0.34	3.45	0.66	33	6	34	7
2003	1.60	0.30	1.66	0.31	3.26	0.61	36	7	36	7
2004	1.66	0.31	1.66	0.31	3.32	0.63	30	6	34	6
2005	1.65	0.33	1.80	0.36	3.45	0.69	27	5	27	5
2006	1.42	0.25	1.48	0.26	2.90	0.52	27	5	35	6
2007	1.70	0.31	1.73	0.31	3.43	0.62	30	5	30	5
2008	1.59	0.29	1.58	0.29	3.17	0.58	26	5	25	5
2009	1.84	0.32	1.81	0.31	3.65	0.63	34	6	38	7
2010	1.71	0.31	1.79	0.32	3.50	0.63	26	5	29	5
2011	1.75	0.31	1.87	0.33	3.62	0.64	31	5	29	5
2012	1.77	0.31	1.69	0.30	3.46	0.61	28	5	27	5
n	12	12	12	12	12	12	12	12	12	12
Mean	1.65	0.30	1.70	0.31	3.35	0.62	29	5	31	6
S.D.	0.12	0.02	0.12	0.03	0.23	0.05	4	1	4	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	56	10	1.88	0.35	1.79	0.33	3.67	0.68	730	136
2002	67	13	1.71	0.33	1.76	0.34	3.47	0.66	665	127
2003	72	13	1.67	0.31	1.65	0.31	3.32	0.62	718	134
2004	64	12	1.69	0.32	1.70	0.32	3.39	0.64	677	128
2005	54	11	1.84	0.37	1.85	0.37	3.69	0.74	684	137
2006	62	11	1.72	0.31	1.64	0.29	3.36	0.60	643	114
2007	60	11	1.62	0.29	1.69	0.31	3.31	0.60	618	112
2008	51	9	1.80	0.33	1.95	0.36	3.75	0.69	588	108
2009	72	12	1.73	0.30	1.70	0.29	3.43	0.59	637	109
2010	55	10	1.82	0.33	1.79	0.32	3.61	0.65	714	129
2011	60	11	1.96	0.34	1.99	0.35	3.95	0.69	713	125
2012	55	10	1.70	0.30	1.74	0.31	3.44	0.61	607	108
n	12	12	12	12	12	12	12	12	12	12
Mean	61	11	1.76	0.32	1.77	0.33	3.53	0.65	666	122
S.D.	7	1	0.10	0.02	0.11	0.03	0.20	0.05	48	11

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	665	124	1395	259	1.38	0.26	1.86	0.35
2002	684	131	1349	258	1.22	0.23	1.65	0.32
2003	700	130	1418	264	1.07	0.20	2.11	0.39
2004	629	119	1306	246	1.12	0.21	2.05	0.39
2005	744	149	1428	286	0.88	0.18	1.44	0.29
2006	630	112	1273	227	1.09	0.19	1.89	0.34
2007	623	113	1241	226	1.65	0.30	2.27	0.41
2008	700	128	1288	236	1.24	0.23	1.81	0.33
2009	690	118	1327	227	1.57	0.27	1.81	0.31
2010	697	126	1411	255	1.44	0.26	1.99	0.36
2011	718	126	1431	251	1.33	0.23	1.71	0.30
2012	585	104	1192	211	1.70	0.30	2.00	0.35
n	12	12	12	12	12	12	12	12
Mean	672	123	1338	246	1.31	0.24	1.88	0.35
S.D.	46	11	80	21	0.25	0.04	0.22	0.04

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	519	2.25	0.43	11.5	2.2	10.8	2.1	9.1	1.8
3002	571	2.12	0.37	14.4	2.5	11.0	1.9	10.6	1.9
3003	536	2.16	0.40	12.5	2.3	11.9	2.2	10.7	2.0
3004	571	2.23	0.39	13.8	2.4	11.8	2.1	14.7	2.6
3005	552	2.11	0.38	14.4	2.6	12.7	2.3	11.4	2.1
3006	536	2.22	0.41	14.8	2.8	12.2	2.3	9.9	1.8
3007	550	2.23	0.41	14.8	2.7	8.9	1.6	9.1	1.7
3008	500	2.40	0.48	13.0	2.6	15.3	3.1	12.4	2.5
3009	513	2.19	0.43	13.2	2.6	11.2	2.2	8.4	1.6
3010	556	2.11	0.38	14.6	2.6	10.0	1.8	7.6	1.4
3011	526	2.22	0.42	12.5	2.4	10.4	2.0	9.8	1.9
3012	547	2.26	0.41	10.9	2.0	10.9	2.0	11.5	2.1
n	12	12	12	12	12	12	12	12	12
Mean	540	2.21	0.41	13.4	2.5	11.4	2.1	10.4	2.0
S.D.	22	0.08	0.03	1.3	0.2	1.6	0.4	1.9	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
3001	19.9	3.8	422	81	1.42	0.27	13.00	2.50	0.74	0.14
3002	21.6	3.8	341	60	1.48	0.26	15.38	2.69	0.85	0.15
3003	22.6	4.2	317	59	1.39	0.26	11.96	2.23	0.75	0.14
3004	26.5	4.6	305	53	1.48	0.26	15.83	2.77	0.82	0.14
3005	24.1	4.4	256	46	1.55	0.28	14.19	2.57	0.79	0.14
3006	22.1	4.1	326	61	1.48	0.28	12.02	2.24	0.65	0.12
3007	18.0	3.3	343	62	1.80	0.33	14.01	2.55	0.83	0.15
3008	27.7	5.5	196	39	1.56	0.31	12.11	2.42	0.63	0.13
3009	19.6	3.8	366	71	1.44	0.28	11.89	2.32	0.77	0.15
3010	17.6	3.2	337	61	1.74	0.31	13.58	2.44	0.65	0.12
3011	20.2	3.8	296	56	1.64	0.31	12.11	2.30	0.60	0.11
3012	22.4	4.1	269	49	1.51	0.28	15.67	2.86	0.88	0.16
n	12	12	12	12	12	12	12	12	12	12
Mean	21.9	4.1	315	58	1.54	0.29	13.48	2.49	0.75	0.14
S.D.	3.1	0.6	57	11	0.13	0.02	1.53	0.21	0.09	0.01

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	1.62	0.31	1.65	0.32	3.27	0.63	19	4	33	6
3002	1.66	0.29	1.72	0.30	3.38	0.59	34	6	32	6
3003	1.78	0.33	1.79	0.33	3.57	0.67	28	5	30	6
3004	1.71	0.30	1.87	0.33	3.58	0.63	30	5	34	6
3005	1.76	0.32	1.94	0.35	3.70	0.67	28	5	33	6
3006	1.83	0.34	1.75	0.33	3.58	0.67	32	6	38	7
3007	1.67	0.30	1.74	0.32	3.41	0.62	28	5	25	5
3008	1.76	0.35	1.85	0.37	3.61	0.72	31	6	31	6
3009	1.45	0.28	1.50	0.29	2.95	0.58	35	7	35	7
3010	1.81	0.33	1.80	0.32	3.61	0.65	33	6	40	7
3011	1.65	0.31	1.61	0.31	3.26	0.62	28	5	31	6
3012	1.64	0.30	1.71	0.31	3.35	0.61	28	5	32	6
n	12	12	12	12	12	12	12	12	12	12
Mean	1.70	0.31	1.74	0.32	3.44	0.64	30	5	33	6
S.D.	0.10	0.02	0.12	0.02	0.21	0.04	4	1	4	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
3001	52	10	1.73	0.33	1.80	0.35	3.53	0.68	726	140
3002	66	12	1.65	0.29	1.57	0.27	3.22	0.56	674	118
3003	58	11	1.64	0.31	1.62	0.30	3.26	0.61	627	117
3004	64	11	2.03	0.36	2.00	0.35	4.03	0.71	733	128
3005	61	11	1.94	0.35	1.98	0.36	3.92	0.71	749	136
3006	70	13	1.67	0.31	1.76	0.33	3.43	0.64	637	119
3007	53	10	1.66	0.30	1.67	0.30	3.33	0.61	705	128
3008	62	12	1.71	0.34	1.70	0.34	3.41	0.68	710	142
3009	70	14	1.65	0.32	1.71	0.33	3.36	0.65	583	114
3010	73	13	1.61	0.29	1.65	0.30	3.26	0.59	639	115
3011	59	11	1.78	0.34	1.78	0.34	3.56	0.68	739	140
3012	60	11	1.91	0.35	1.84	0.34	3.75	0.69	643	118
n	12	12	12	12	12	12	12	12	12	12
Mean	62	12	1.75	0.32	1.76	0.33	3.51	0.65	680	126
S.D.	7	1	0.14	0.02	0.13	0.03	0.27	0.05	54	11

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	674	130	1400	270	1.35	0.26	2.03	0.39
3002	639	112	1313	230	1.37	0.24	1.88	0.33
3003	610	114	1237	231	1.24	0.23	2.06	0.38
3004	730	128	1463	256	1.41	0.25	2.22	0.39
3005	795	144	1544	280	1.34	0.24	2.09	0.38
3006	636	119	1273	238	1.72	0.32	1.85	0.35
3007	618	112	1323	241	1.40	0.25	1.78	0.32
3008	643	129	1353	271	1.29	0.26	2.06	0.41
3009	570	111	1153	225	1.30	0.25	1.87	0.36
3010	608	109	1247	224	1.49	0.27	2.05	0.37
3011	686	130	1425	271	1.42	0.27	1.77	0.34
3012	650	119	1293	236	1.40	0.26	1.90	0.35
n	12	12	12	12	12	12	12	12
Mean	655	121	1335	248	1.39	0.26	1.96	0.36
S.D.	60	11	108	21	0.12	0.02	0.14	0.03

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 9 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	507	2.23	0.44	12.5	2.5	10.9	2.1	11.3	2.2
4002	531	2.02	0.38	12.8	2.4	8.9	1.7	9.7	1.8
4003	545	2.17	0.40	13.0	2.4	15.4	2.8	13.3	2.4
4004	512	2.09	0.41	15.6	3.0	13.1	2.6	11.3	2.2
4005	509	2.24	0.44	13.7	2.7	12.6	2.5	13.0	2.6
4006	555	2.21	0.40	14.2	2.6	13.4	2.4	10.7	1.9
4007	526	2.20	0.42	13.1	2.5	13.8	2.6	11.3	2.1
n	7	7	7	7	7	7	7	7	7
Mean	526	2.17	0.41	13.6	2.6	12.6	2.4	11.5	2.2
S.D.	19	0.08	0.02	1.1	0.2	2.1	0.4	1.3	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
4001	22.2	4.4	355	70	1.56	0.31	13.96	2.75	0.82	0.16
4002	18.6	3.5	215	40	1.41	0.27	13.50	2.54	0.64	0.12
4003	28.7	5.3	284	52	1.62	0.30	14.35	2.63	0.72	0.13
4004	24.4	4.8	253	49	1.43	0.28	12.21	2.38	0.91	0.18
4005	25.6	5.0	285	56	1.43	0.28	11.99	2.36	0.85	0.17
4006	24.1	4.3	301	54	1.48	0.27	12.96	2.34	0.55	0.10
4007	25.1	4.8	286	54	1.40	0.27	12.05	2.29	0.66	0.13
n	7	7	7	7	7	7	7	7	7	7
Mean	24.1	4.6	283	54	1.48	0.28	13.00	2.47	0.74	0.14
S.D.	3.1	0.6	43	9	0.08	0.02	0.96	0.17	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	1.74	0.34	1.97	0.39	3.71	0.73	28	6	27	5
4002	1.60	0.30	1.85	0.35	3.45	0.65	28	5	28	5
4003	1.78	0.33	1.96	0.36	3.74	0.69	31	6	33	6
4004	1.72	0.34	1.93	0.38	3.65	0.71	31	6	37	7
4005	1.47	0.29	1.66	0.33	3.13	0.61	41	8	42	8
4006	1.88	0.34	1.94	0.35	3.82	0.69	25	5	24	4
4007	1.62	0.31	1.67	0.32	3.29	0.63	25	5	28	5
n	7	7	7	7	7	7	7	7	7	7
Mean	1.69	0.32	1.85	0.35	3.54	0.67	30	6	31	6
S.D.	0.13	0.02	0.14	0.03	0.26	0.04	5	1	6	1

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 10 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Male Dose : Ethyl Stearate 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	55	11	1.28	0.25	1.38	0.27	2.66	0.52	579	114
4002	56	11	1.76	0.33	1.78	0.34	3.54	0.67	671	126
4003	64	12	1.74	0.32	1.77	0.32	3.51	0.64	707	130
4004	68	13	1.71	0.33	1.73	0.34	3.44	0.67	585	114
4005	83	16	1.48	0.29	1.47	0.29	2.95	0.58	640	126
4006	49	9	1.72	0.31	1.70	0.31	3.42	0.62	610	110
4007	53	10	1.75	0.33	1.76	0.33	3.51	0.67	669	127
n	7	7	7	7	7	7	7	7	7	7
Mean	61	12	1.63	0.31	1.66	0.31	3.29	0.62	637	121
S.D.	12	2	0.18	0.03	0.16	0.03	0.34	0.06	48	8

	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	566	112	1145	226	1.36	0.27	2.43	0.48
4002	697	131	1368	258	1.42	0.27	1.88	0.35
4003	705	129	1412	259	1.61	0.30	2.11	0.39
4004	587	115	1172	229	1.35	0.26	1.77	0.35
4005	641	126	1281	252	1.16	0.23	1.71	0.34
4006	633	114	1243	224	1.56	0.28	1.97	0.35
4007	668	127	1337	254	1.28	0.24	1.73	0.33
n	7	7	7	7	7	7	7	7
Mean	642	122	1280	243	1.39	0.26	1.94	0.37
S.D.	53	8	100	16	0.16	0.02	0.26	0.05

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 11 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	297	1.89	0.64	14.0	4.7	5.6	1.9	5.3	1.8
1102	283	1.93	0.68	15.2	5.4	6.0	2.1	7.2	2.5
1103	341	2.09	0.61	19.2	5.6	12.1	3.5	10.4	3.0
1104	320	1.97	0.62	15.3	4.8	8.2	2.6	7.9	2.5
1105	305	1.91	0.63	17.3	5.7	10.0	3.3	7.7	2.5
1106	327	1.88	0.57	17.4	5.3	7.3	2.2	10.9	3.3
1107	288	1.84	0.64	19.6	6.8	6.1	2.1	5.8	2.0
1108	296	1.96	0.66	17.8	6.0	7.6	2.6	11.8	4.0
1109	335	2.11	0.63	14.3	4.3	11.3	3.4	11.5	3.4
1111	274	1.84	0.67	16.7	6.1	6.9	2.5	6.4	2.3
1112	324	1.99	0.61	18.9	5.8	7.4	2.3	10.4	3.2
n	11	11	11	11	11	11	11	11	11
Mean	308	1.95	0.63	16.9	5.5	8.0	2.6	8.7	2.8
S.D.	22	0.09	0.03	2.0	0.7	2.2	0.6	2.4	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
1101	10.9	3.7	180	61	1.03	0.35	10.27	3.46	0.61	0.21
1102	13.2	4.7	200	71	0.89	0.31	8.64	3.05	0.59	0.21
1103	22.5	6.6	206	60	1.27	0.37	10.67	3.13	0.70	0.21
1104	16.1	5.0	213	67	1.00	0.31	10.35	3.23	0.71	0.22
1105	17.7	5.8	208	68	0.96	0.31	10.19	3.34	0.74	0.24
1106	18.2	5.6	261	80	1.16	0.35	9.70	2.97	1.06	0.32
1107	11.9	4.1	211	73	0.86	0.30	7.75	2.69	0.51	0.18
1108	19.4	6.6	201	68	0.92	0.31	9.89	3.34	0.65	0.22
1109	22.8	6.8	432	129	1.11	0.33	11.03	3.29	0.85	0.25
1111	13.3	4.9	220	80	0.93	0.34	8.74	3.19	0.67	0.24
1112	17.8	5.5	130	40	0.98	0.30	9.79	3.02	0.54	0.17
n	11	11	11	11	11	11	11	11	11	11
Mean	16.7	5.4	224	72	1.01	0.33	9.73	3.16	0.69	0.22
S.D.	4.0	1.0	76	22	0.12	0.02	0.98	0.22	0.15	0.04

AB : Absolute weight, RE : Relative weight by body weight

Animal No. 1110 : Not copulated

Appendix 8 - 12 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	1.10	0.37	1.05	0.35	2.15	0.72	40	13	45	15
1102	0.90	0.32	0.90	0.32	1.80	0.64	30	11	31	11
1103	1.18	0.35	1.21	0.35	2.39	0.70	50	15	47	14
1104	1.02	0.32	0.99	0.31	2.01	0.63	37	12	41	13
1105	1.23	0.40	1.28	0.42	2.51	0.82	37	12	34	11
1106	1.11	0.34	1.09	0.33	2.20	0.67	31	9	37	11
1107	0.89	0.31	0.86	0.30	1.75	0.61	26	9	28	10
1108	1.16	0.39	1.13	0.38	2.29	0.77	30	10	31	10
1109	1.03	0.31	1.04	0.31	2.07	0.62	42	13	50	15
1111	0.93	0.34	0.94	0.34	1.87	0.68	27	10	26	9
1112	1.14	0.35	1.10	0.34	2.24	0.69	30	9	33	10
n	11	11	11	11	11	11	11	11	11	11
Mean	1.06	0.35	1.05	0.34	2.12	0.69	35	11	37	12
S.D.	0.12	0.03	0.13	0.03	0.24	0.06	7	2	8	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
1101	85	29	57.0	19.2	39.8	13.4	96.8	32.6	751	253
1102	61	22	47.8	16.9	44.0	15.5	91.8	32.4	644	228
1103	97	28	43.6	12.8	60.8	17.8	104.4	30.6	835	245
1104	78	24	45.9	14.3	53.4	16.7	99.3	31.0	703	220
1105	71	23	53.6	17.6	53.2	17.4	106.8	35.0	672	220
1106	68	21	52.1	15.9	66.9	20.5	119.0	36.4	737	225
1107	54	19	48.8	16.9	39.8	13.8	88.6	30.8	666	231
1108	61	21	46.9	15.8	58.3	19.7	105.2	35.5	736	249
1109	92	27	53.2	15.9	62.5	18.7	115.7	34.5	900	269
1111	53	19	53.8	19.6	51.3	18.7	105.1	38.4	774	282
1112	63	19	51.8	16.0	43.8	13.5	95.6	29.5	836	258
n	11	11	11	11	11	11	11	11	11	11
Mean	71	23	50.4	16.4	52.2	16.9	102.6	33.3	750	244
S.D.	15	4	4.1	2.0	9.4	2.5	9.4	2.8	80	21

AB : Absolute weight, RE : Relative weight by body weight

Animal No. 1110 : Not copulated

Appendix 8 - 13 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Body weight g	Brain AB g	Brain RE g/100g	Pituitary AB mg	Pituitary RE mg/100g	Thyroid-R AB mg	Thyroid-R RE mg/100g	Thyroid-L AB mg	Thyroid-L RE mg/100g
2101	283	1.97	0.70	15.5	5.5	7.3	2.6	6.8	2.4
2102	296	1.83	0.62	14.3	4.8	7.6	2.6	7.5	2.5
2103	311	1.84	0.59	16.0	5.1	10.4	3.3	7.8	2.5
2104	316	2.00	0.63	16.0	5.1	8.9	2.8	7.8	2.5
2105	318	1.86	0.58	15.9	5.0	9.3	2.9	8.6	2.7
2106	300	1.85	0.62	17.1	5.7	7.9	2.6	7.5	2.5
2107	288	1.98	0.69	19.3	6.7	8.4	2.9	7.2	2.5
2108	315	1.82	0.58	17.5	5.6	7.9	2.5	6.5	2.1
2109	319	1.89	0.59	14.5	4.5	10.1	3.2	9.1	2.9
2110	323	1.97	0.61	17.8	5.5	6.9	2.1	7.1	2.2
2112	300	2.05	0.68	16.8	5.6	7.9	2.6	6.9	2.3
n	11	11	11	11	11	11	11	11	11
Mean	306	1.91	0.63	16.4	5.4	8.4	2.7	7.5	2.5
S.D.	14	0.08	0.04	1.5	0.6	1.1	0.3	0.8	0.2

Animal No.	Thyroid-RL AB mg	Thyroid-RL RE mg/100g	Thymus AB mg	Thymus RE mg/100g	Heart AB g	Heart RE g/100g	Liver AB g	Liver RE g/100g	Spleen AB g	Spleen RE g/100g
2101	14.1	5.0	177	63	0.92	0.33	8.37	2.96	0.47	0.17
2102	15.1	5.1	219	74	1.03	0.35	9.01	3.04	0.60	0.20
2103	18.2	5.9	310	100	0.97	0.31	9.52	3.06	0.57	0.18
2104	16.7	5.3	124	39	0.97	0.31	9.23	2.92	0.69	0.22
2105	17.9	5.6	129	41	0.98	0.31	10.55	3.32	0.61	0.19
2106	15.4	5.1	213	71	0.92	0.31	9.01	3.00	0.64	0.21
2107	15.6	5.4	199	69	1.02	0.35	10.05	3.49	0.59	0.20
2108	14.4	4.6	207	66	0.94	0.30	9.65	3.06	0.53	0.17
2109	19.2	6.0	184	58	1.06	0.33	9.25	2.90	0.61	0.19
2110	14.0	4.3	211	65	1.11	0.34	10.31	3.19	0.60	0.19
2112	14.8	4.9	171	57	1.06	0.35	9.79	3.26	0.58	0.19
n	11	11	11	11	11	11	11	11	11	11
Mean	15.9	5.2	195	64	1.00	0.33	9.52	3.11	0.59	0.19
S.D.	1.8	0.5	50	16	0.06	0.02	0.64	0.18	0.06	0.02

AB : Absolute weight, RE : Relative weight by body weight

Animal No. 2111 : Not copulated

Appendix 8 - 14 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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
2101	0.99	0.35	0.94	0.33	1.93	0.68	29	10	30	11
2102	1.04	0.35	1.04	0.35	2.08	0.70	35	12	36	12
2103	0.99	0.32	0.98	0.32	1.97	0.63	25	8	29	9
2104	0.92	0.29	0.91	0.29	1.83	0.58	27	9	33	10
2105	1.20	0.38	1.19	0.37	2.39	0.75	33	10	35	11
2106	1.16	0.39	1.10	0.37	2.26	0.75	34	11	44	15
2107	0.99	0.34	0.95	0.33	1.94	0.67	25	9	29	10
2108	1.03	0.33	1.03	0.33	2.06	0.65	31	10	37	12
2109	0.98	0.31	0.95	0.30	1.93	0.61	38	12	39	12
2110	0.96	0.30	0.97	0.30	1.93	0.60	28	9	30	9
2112	1.06	0.35	1.12	0.37	2.18	0.73	41	14	41	14
n	11	11	11	11	11	11	11	11	11	11
Mean	1.03	0.34	1.02	0.33	2.05	0.67	31	10	35	11
S.D.	0.08	0.03	0.09	0.03	0.17	0.06	5	2	5	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
2101	59	21	46.1	16.3	32.7	11.6	78.8	27.8	713	252
2102	71	24	42.7	14.4	48.0	16.2	90.7	30.6	629	213
2103	54	17	34.9	11.2	44.0	14.1	78.9	25.4	752	242
2104	60	19	47.8	15.1	50.8	16.1	98.6	31.2	615	195
2105	68	21	53.6	16.9	51.6	16.2	105.2	33.1	794	250
2106	78	26	57.7	19.2	49.3	16.4	107.0	35.7	793	264
2107	54	19	61.1	21.2	58.4	20.3	119.5	41.5	690	240
2108	68	22	47.2	15.0	64.4	20.4	111.6	35.4	726	230
2109	77	24	59.1	18.5	44.3	13.9	103.4	32.4	682	214
2110	58	18	56.5	17.5	37.2	11.5	93.7	29.0	825	255
2112	82	27	69.9	23.3	59.5	19.8	129.4	43.1	746	249
n	11	11	11	11	11	11	11	11	11	11
Mean	66	22	52.4	17.1	49.1	16.0	101.5	33.2	724	237
S.D.	10	3	9.8	3.4	9.5	3.2	15.7	5.5	67	21

AB : Absolute weight, RE : Relative weight by body weight

Animal No. 2111 : Not copulated

Appendix 8 - 15 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	315	1.92	0.61	16.3	5.2	9.6	3.0	10.1	3.2
3102	307	1.93	0.63	16.3	5.3	10.5	3.4	9.1	3.0
3103	289	1.85	0.64	16.3	5.6	8.2	2.8	6.5	2.2
3104	298	1.95	0.65	20.1	6.7	7.3	2.4	8.5	2.9
3105	309	1.99	0.64	18.5	6.0	10.6	3.4	9.2	3.0
3106	294	1.89	0.64	12.1	4.1	6.6	2.2	6.9	2.3
3107	317	2.07	0.65	17.1	5.4	7.0	2.2	8.2	2.6
3108	301	1.87	0.62	13.6	4.5	8.0	2.7	7.1	2.4
3109	317	2.03	0.64	17.2	5.4	7.6	2.4	9.4	3.0
3110	310	2.08	0.67	18.2	5.9	8.3	2.7	10.2	3.3
3111	296	1.86	0.63	12.9	4.4	8.0	2.7	6.2	2.1
3112	327	2.03	0.62	13.4	4.1	10.5	3.2	11.4	3.5
n	12	12	12	12	12	12	12	12	12
Mean	307	1.96	0.64	16.0	5.2	8.5	2.8	8.6	2.8
S.D.	11	0.08	0.02	2.5	0.8	1.4	0.4	1.6	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
3101	19.7	6.3	153	49	0.95	0.30	9.14	2.90	0.57	0.18
3102	19.6	6.4	248	81	0.98	0.32	9.69	3.16	0.86	0.28
3103	14.7	5.1	139	48	0.90	0.31	10.20	3.53	0.79	0.27
3104	15.8	5.3	213	71	1.03	0.35	9.35	3.14	0.59	0.20
3105	19.8	6.4	231	75	1.04	0.34	9.94	3.22	0.69	0.22
3106	13.5	4.6	249	85	0.89	0.30	9.56	3.25	0.63	0.21
3107	15.2	4.8	179	56	1.02	0.32	8.67	2.74	0.64	0.20
3108	15.1	5.0	203	67	1.00	0.33	10.07	3.35	0.79	0.26
3109	17.0	5.4	191	60	1.05	0.33	10.44	3.29	0.70	0.22
3110	18.5	6.0	192	62	1.00	0.32	10.25	3.31	0.70	0.23
3111	14.2	4.8	224	76	0.93	0.31	9.81	3.31	0.74	0.25
3112	21.9	6.7	171	52	1.05	0.32	10.12	3.09	0.68	0.21
n	12	12	12	12	12	12	12	12	12	12
Mean	17.1	5.6	199	65	0.99	0.32	9.77	3.19	0.70	0.23
S.D.	2.7	0.7	35	13	0.06	0.02	0.52	0.21	0.09	0.03

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : Lactation day 5

Sex : Female

Dose : Ethyl Stearate 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	0.96	0.30	0.95	0.30	1.91	0.61	32	10	35	11
3102	1.05	0.34	1.07	0.35	2.12	0.69	37	12	38	12
3103	1.07	0.37	1.04	0.36	2.11	0.73	37	13	38	13
3104	1.10	0.37	1.06	0.36	2.16	0.72	31	10	33	11
3105	1.12	0.36	1.11	0.36	2.23	0.72	32	10	35	11
3106	0.91	0.31	0.91	0.31	1.82	0.62	29	10	31	11
3107	1.02	0.32	1.07	0.34	2.09	0.66	30	9	34	11
3108	1.21	0.40	1.14	0.38	2.35	0.78	32	11	36	12
3109	1.07	0.34	1.15	0.36	2.22	0.70	30	9	32	10
3110	1.12	0.36	1.13	0.36	2.25	0.73	38	12	40	13
3111	1.03	0.35	1.06	0.36	2.09	0.71	36	12	41	14
3112	1.10	0.34	1.09	0.33	2.19	0.67	40	12	43	13
n	12	12	12	12	12	12	12	12	12	12
Mean	1.06	0.35	1.07	0.35	2.13	0.70	34	11	36	12
S.D.	0.08	0.03	0.07	0.02	0.15	0.05	4	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	67	21	46.6	14.8	47.3	15.0	93.9	29.8	704	223
3102	75	24	46.4	15.1	57.5	18.7	103.9	33.8	647	211
3103	75	26	53.7	18.6	37.3	12.9	91.0	31.5	635	220
3104	64	21	41.7	14.0	52.5	17.6	94.2	31.6	572	192
3105	67	22	51.4	16.6	53.2	17.2	104.6	33.9	744	241
3106	60	20	42.3	14.4	51.4	17.5	93.7	31.9	613	209
3107	64	20	44.8	14.1	45.5	14.4	90.3	28.5	706	223
3108	68	23	52.3	17.4	34.5	11.5	86.8	28.8	710	236
3109	62	20	50.2	15.8	40.8	12.9	91.0	28.7	743	234
3110	78	25	54.4	17.5	57.5	18.5	111.9	36.1	662	214
3111	77	26	44.5	15.0	43.9	14.8	88.4	29.9	721	244
3112	83	25	51.2	15.7	71.7	21.9	122.9	37.6	719	220
n	12	12	12	12	12	12	12	12	12	12
Mean	70	23	48.3	15.8	49.4	16.1	97.7	31.8	681	222
S.D.	7	2	4.4	1.5	10.2	3.0	10.9	3.0	55	15

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 17 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	307	1.94	0.63	17.1	5.6	8.7	2.8	5.3	1.7
4102	348	1.96	0.56	18.9	5.4	9.3	2.7	7.7	2.2
4103	315	1.97	0.63	17.3	5.5	4.4	1.4	7.8	2.5
4104	296	1.97	0.67	15.3	5.2	8.5	2.9	8.9	3.0
4105	296	1.98	0.67	16.9	5.7	9.4	3.2	5.7	1.9
4106	301	1.91	0.63	19.1	6.3	7.0	2.3	7.9	2.6
4107	312	1.90	0.61	16.9	5.4	7.0	2.2	6.9	2.2
4108	286	2.01	0.70	15.3	5.3	9.9	3.5	6.8	2.4
4109	300	1.95	0.65	16.0	5.3	9.8	3.3	8.0	2.7
4110	289	1.96	0.68	18.6	6.4	7.0	2.4	8.7	3.0
4111	285	1.85	0.65	15.7	5.5	7.4	2.6	8.5	3.0
4112	329	1.94	0.59	20.6	6.3	11.2	3.4	10.9	3.3
n	12	12	12	12	12	12	12	12	12
Mean	305	1.95	0.64	17.3	5.7	8.3	2.7	7.8	2.5
S.D.	19	0.04	0.04	1.7	0.4	1.8	0.6	1.5	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
4101	14.0	4.6	118	38	0.95	0.31	11.59	3.78	0.76	0.25
4102	17.0	4.9	293	84	1.04	0.30	10.23	2.94	0.66	0.19
4103	12.2	3.9	286	91	1.16	0.37	9.97	3.17	0.58	0.18
4104	17.4	5.9	217	73	1.05	0.35	9.08	3.07	0.58	0.20
4105	15.1	5.1	235	79	0.95	0.32	9.13	3.08	0.66	0.22
4106	14.9	5.0	209	69	1.00	0.33	8.75	2.91	0.66	0.22
4107	13.9	4.5	244	78	0.88	0.28	8.91	2.86	0.80	0.26
4108	16.7	5.8	228	80	0.96	0.34	7.92	2.77	0.48	0.17
4109	17.8	5.9	184	61	0.99	0.33	10.88	3.63	0.73	0.24
4110	15.7	5.4	220	76	0.95	0.33	8.84	3.06	0.68	0.24
4111	15.9	5.6	298	105	0.90	0.32	9.25	3.25	0.74	0.26
4112	22.1	6.7	186	57	1.00	0.30	10.12	3.08	0.58	0.18
n	12	12	12	12	12	12	12	12	12	12
Mean	16.1	5.3	227	74	0.99	0.32	9.56	3.13	0.66	0.22
S.D.	2.5	0.8	51	17	0.07	0.02	1.03	0.30	0.09	0.03

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 18 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Lactation day 5

Sex : Female Dose : Ethyl Stearate 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	1.13	0.37	1.16	0.38	2.29	0.75	42	14	43	14
4102	1.01	0.29	0.97	0.28	1.98	0.57	41	12	43	12
4103	1.00	0.32	1.02	0.32	2.02	0.64	48	15	47	15
4104	1.06	0.36	1.01	0.34	2.07	0.70	30	10	33	11
4105	0.92	0.31	0.88	0.30	1.80	0.61	33	11	33	11
4106	0.97	0.32	0.98	0.33	1.95	0.65	30	10	32	11
4107	0.99	0.32	0.97	0.31	1.96	0.63	40	13	39	13
4108	0.90	0.31	0.94	0.33	1.84	0.64	27	9	29	10
4109	1.09	0.36	1.01	0.34	2.10	0.70	29	10	32	11
4110	0.95	0.33	0.95	0.33	1.90	0.66	30	10	35	12
4111	0.82	0.29	0.84	0.29	1.66	0.58	31	11	34	12
4112	1.11	0.34	1.08	0.33	2.19	0.67	28	9	30	9
n	12	12	12	12	12	12	12	12	12	12
Mean	1.00	0.33	0.98	0.32	1.98	0.65	34	11	36	12
S.D.	0.09	0.03	0.08	0.03	0.17	0.05	7	2	6	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
4101	85	28	65.9	21.5	50.9	16.6	116.8	38.0	970	316
4102	84	24	48.5	13.9	49.7	14.3	98.2	28.2	659	189
4103	95	30	54.1	17.2	60.7	19.3	114.8	36.4	825	262
4104	63	21	36.1	12.2	47.6	16.1	83.7	28.3	579	196
4105	66	22	43.0	14.5	45.5	15.4	88.5	29.9	764	258
4106	62	21	44.6	14.8	65.5	21.8	110.1	36.6	562	187
4107	79	25	53.5	17.1	55.8	17.9	109.3	35.0	733	235
4108	56	20	40.3	14.1	46.2	16.2	86.5	30.2	637	223
4109	61	20	80.0	26.7	60.7	20.2	140.7	46.9	819	273
4110	65	22	60.4	20.9	66.8	23.1	127.2	44.0	955	330
4111	65	23	56.3	19.8	53.4	18.7	109.7	38.5	606	213
4112	58	18	61.6	18.7	44.2	13.4	105.8	32.2	859	261
n	12	12	12	12	12	12	12	12	12	12
Mean	70	23	53.7	17.6	53.9	17.8	107.6	35.4	747	245
S.D.	13	3	12.3	4.1	7.9	3.0	16.8	6.0	141	47

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 19 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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	297	1.94	0.65	14.9	5.0	11.2	3.8	9.1	3.1
5102	291	1.96	0.67	14.7	5.1	10.7	3.7	9.0	3.1
5103	258	1.75	0.68	14.4	5.6	8.4	3.3	7.0	2.7
5104	277	1.79	0.65	15.1	5.5	7.1	2.6	6.0	2.2
5105	256	1.91	0.75	17.1	6.7	7.9	3.1	7.6	3.0
n	5	5	5	5	5	5	5	5	5
Mean	276	1.87	0.68	15.2	5.6	9.1	3.3	7.7	2.8
S.D.	19	0.09	0.04	1.1	0.7	1.8	0.5	1.3	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
5101	20.3	6.8	302	102	0.91	0.31	7.74	2.61	0.59	0.20
5102	19.7	6.8	262	90	0.89	0.31	6.99	2.40	0.39	0.13
5103	15.4	6.0	184	71	0.81	0.31	6.40	2.48	0.41	0.16
5104	13.1	4.7	252	91	0.88	0.32	6.97	2.52	0.42	0.15
5105	15.5	6.1	217	85	0.88	0.34	6.38	2.49	0.38	0.15
n	5	5	5	5	5	5	5	5	5	5
Mean	16.8	6.1	243	88	0.87	0.32	6.90	2.50	0.44	0.16
S.D.	3.1	0.9	45	11	0.04	0.01	0.56	0.08	0.09	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
5101	0.97	0.33	1.00	0.34	1.97	0.66	35	12	39	13
5102	0.84	0.29	0.81	0.28	1.65	0.57	33	11	31	11
5103	0.98	0.38	0.98	0.38	1.96	0.76	30	12	35	14
5104	0.91	0.33	0.92	0.33	1.83	0.66	35	13	36	13
5105	0.87	0.34	0.86	0.34	1.73	0.68	23	9	25	10
n	5	5	5	5	5	5	5	5	5	5
Mean	0.91	0.33	0.91	0.33	1.83	0.67	31	11	33	12
S.D.	0.06	0.03	0.08	0.04	0.14	0.07	5	2	5	2

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 20 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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
5101	74	25	36.7	12.4	31.0	10.4	67.7	22.8	630	212
5102	64	22	44.4	15.3	34.1	11.7	78.5	27.0	715	246
5103	65	25	28.6	11.1	34.3	13.3	62.9	24.4	748	290
5104	71	26	43.4	15.7	46.5	16.8	89.9	32.5	557	201
5105	48	19	44.5	17.4	39.0	15.2	83.5	32.6	564	220
n	5	5	5	5	5	5	5	5	5	5
Mean	64	23	39.5	14.4	37.0	13.5	76.5	27.9	643	234
S.D.	10	3	6.9	2.6	6.0	2.6	11.1	4.5	87	36

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 21 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Female Dose : Ethyl Stearate 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	258	1.82	0.71	13.4	5.2	4.0	1.6	5.3	2.1
6102	287	1.97	0.69	15.0	5.2	10.9	3.8	9.5	3.3
6103	275	1.94	0.71	14.4	5.2	8.3	3.0	7.2	2.6
6104	288	2.01	0.70	14.8	5.1	6.2	2.2	6.3	2.2
6105	273	2.01	0.74	13.5	4.9	9.1	3.3	9.1	3.3
n	5	5	5	5	5	5	5	5	5
Mean	276	1.95	0.71	14.2	5.1	7.7	2.8	7.5	2.7
S.D.	12	0.08	0.02	0.7	0.1	2.7	0.9	1.8	0.6

	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	9.3	3.6	336	130	0.94	0.36	6.24	2.42	0.45	0.17
6102	20.4	7.1	221	77	0.91	0.32	7.27	2.53	0.45	0.16
6103	15.5	5.6	247	90	0.96	0.35	7.17	2.61	0.63	0.23
6104	12.5	4.3	218	76	0.96	0.33	7.02	2.44	0.47	0.16
6105	18.2	6.7	305	112	0.90	0.33	6.74	2.47	0.52	0.19
n	5	5	5	5	5	5	5	5	5	5
Mean	15.2	5.5	265	97	0.93	0.34	6.89	2.49	0.50	0.18
S.D.	4.4	1.5	53	23	0.03	0.02	0.41	0.08	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
6101	0.85	0.33	0.85	0.33	1.70	0.66	32	12	31	12
6102	1.02	0.36	1.03	0.36	2.05	0.71	34	12	36	13
6103	0.87	0.32	0.97	0.35	1.84	0.67	32	12	29	11
6104	1.17	0.41	1.18	0.41	2.35	0.82	32	11	35	12
6105	0.85	0.31	0.88	0.32	1.73	0.63	34	12	30	11
n	5	5	5	5	5	5	5	5	5	5
Mean	0.95	0.35	0.98	0.35	1.93	0.70	33	12	32	12
S.D.	0.14	0.04	0.13	0.04	0.27	0.07	1	0	3	1

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 22 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of administration

Sex : Female Dose : Ethyl Stearate 1000 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
6101	63	24	38.0	14.7	46.4	18.0	84.4	32.7	791	307
6102	70	24	50.7	17.7	49.7	17.3	100.4	35.0	508	177
6103	61	22	44.7	16.3	43.3	15.7	88.0	32.0	651	237
6104	67	23	43.8	15.2	45.2	15.7	89.0	30.9	586	203
6105	64	23	48.8	17.9	46.4	17.0	95.2	34.9	555	203
n	5	5	5	5	5	5	5	5	5	5
Mean	65	23	45.2	16.4	46.2	16.7	91.4	33.1	618	225
S.D.	4	1	4.9	1.4	2.3	1.0	6.4	1.8	110	50

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : End of recovery

Sex : Male

Dose : Ethyl Stearate 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	550	2.23	0.41	13.7	2.5	15.4	2.8	13.4	2.4
1009	524	2.29	0.44	12.4	2.4	15.9	3.0	10.8	2.1
1010	590	2.21	0.37	14.0	2.4	14.4	2.4	12.1	2.1
1011	532	2.15	0.40	13.6	2.6	9.8	1.8	9.8	1.8
1012	591	2.15	0.36	13.0	2.2	21.1	3.6	19.6	3.3
n	5	5	5	5	5	5	5	5	5
Mean	557	2.21	0.40	13.3	2.4	15.3	2.7	13.1	2.3
S.D.	32	0.06	0.03	0.6	0.1	4.0	0.7	3.9	0.6

	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	28.8	5.2	205	37	1.45	0.26	15.17	2.76	0.82	0.15
1009	26.7	5.1	220	42	1.48	0.28	13.72	2.62	0.75	0.14
1010	26.5	4.5	373	63	1.80	0.31	14.73	2.50	0.72	0.12
1011	19.6	3.7	302	57	1.62	0.30	13.19	2.48	0.71	0.13
1012	40.7	6.9	231	39	1.55	0.26	15.05	2.55	0.81	0.14
n	5	5	5	5	5	5	5	5	5	5
Mean	28.5	5.1	266	48	1.58	0.28	14.37	2.58	0.76	0.14
S.D.	7.7	1.2	70	12	0.14	0.02	0.87	0.11	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
1008	1.98	0.36	1.86	0.34	3.84	0.70	30	5	33	6
1009	1.61	0.31	1.60	0.31	3.21	0.61	26	5	29	6
1010	1.69	0.29	1.77	0.30	3.46	0.59	32	5	37	6
1011	1.67	0.31	1.61	0.30	3.28	0.62	30	6	38	7
1012	1.93	0.33	2.07	0.35	4.00	0.68	31	5	29	5
n	5	5	5	5	5	5	5	5	5	5
Mean	1.78	0.32	1.78	0.32	3.56	0.64	30	5	33	6
S.D.	0.17	0.03	0.19	0.02	0.35	0.05	2	0	4	1

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 24 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of recovery

Sex : Male Dose : Ethyl Stearate 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	63	11	1.87	0.34	1.81	0.33	3.68	0.67	725	132
1009	55	10	1.86	0.35	1.88	0.36	3.74	0.71	681	130
1010	69	12	1.32	0.22	1.36	0.23	2.68	0.45	539	91
1011	68	13	1.61	0.30	1.56	0.29	3.17	0.60	666	125
1012	60	10	1.89	0.32	1.81	0.31	3.70	0.63	762	129
n	5	5	5	5	5	5	5	5	5	5
Mean	63	11	1.71	0.31	1.68	0.30	3.39	0.61	675	121
S.D.	6	1	0.25	0.05	0.22	0.05	0.46	0.10	85	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
1008	709	129	1434	261	1.86	0.34	2.26	0.41
1009	676	129	1357	259	1.26	0.24	1.67	0.32
1010	601	102	1140	193	1.55	0.26	1.99	0.34
1011	653	123	1319	248	1.45	0.27	1.71	0.32
1012	722	122	1484	251	1.57	0.27	1.60	0.27
n	5	5	5	5	5	5	5	5
Mean	672	121	1347	242	1.54	0.28	1.85	0.33
S.D.	48	11	132	28	0.22	0.04	0.27	0.05

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : End of recovery

Sex : Male

Dose : Ethyl Stearate 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	590	2.16	0.37	11.1	1.9	13.0	2.2	10.1	1.7
4009	509	2.06	0.40	12.5	2.5	8.8	1.7	9.6	1.9
4010	502	2.10	0.42	11.0	2.2	11.1	2.2	7.6	1.5
4011	537	2.24	0.42	11.6	2.2	15.0	2.8	13.8	2.6
4012	566	2.30	0.41	12.5	2.2	16.6	2.9	13.8	2.4
n	5	5	5	5	5	5	5	5	5
Mean	541	2.17	0.40	11.7	2.2	12.9	2.4	11.0	2.0
S.D.	37	0.10	0.02	0.7	0.2	3.1	0.5	2.7	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
4008	23.1	3.9	289	49	1.66	0.28	14.05	2.38	0.74	0.13
4009	18.4	3.6	274	54	1.23	0.24	10.20	2.00	0.68	0.13
4010	18.7	3.7	139	28	1.71	0.34	11.92	2.37	0.69	0.14
4011	28.8	5.4	212	39	1.50	0.28	11.94	2.22	0.76	0.14
4012	30.4	5.4	291	51	1.55	0.27	12.24	2.16	0.70	0.12
n	5	5	5	5	5	5	5	5	5	5
Mean	23.9	4.4	241	44	1.53	0.28	12.07	2.23	0.71	0.13
S.D.	5.6	0.9	65	11	0.19	0.04	1.37	0.16	0.03	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
4008	1.81	0.31	1.86	0.32	3.67	0.62	28	5	33	6
4009	1.42	0.28	1.45	0.28	2.87	0.56	24	5	25	5
4010	1.66	0.33	1.69	0.34	3.35	0.67	24	5	24	5
4011	1.61	0.30	1.71	0.32	3.32	0.62	23	4	25	5
4012	1.52	0.27	1.64	0.29	3.16	0.56	26	5	28	5
n	5	5	5	5	5	5	5	5	5	5
Mean	1.60	0.30	1.67	0.31	3.27	0.61	25	5	27	5
S.D.	0.15	0.02	0.15	0.02	0.29	0.05	2	0	4	0

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : End of recovery

Sex : Male

Dose : Ethyl Stearate 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	61	10	1.77	0.30	1.69	0.29	3.46	0.59	723	123
4009	49	10	1.65	0.32	1.62	0.32	3.27	0.64	619	122
4010	48	10	1.77	0.35	1.69	0.34	3.46	0.69	627	125
4011	48	9	1.72	0.32	1.80	0.34	3.52	0.66	810	151
4012	54	10	1.68	0.30	1.73	0.31	3.41	0.60	700	124
n	5	5	5	5	5	5	5	5	5	5
Mean	52	10	1.72	0.32	1.71	0.32	3.42	0.64	696	129
S.D.	6	0	0.05	0.02	0.07	0.02	0.09	0.04	78	12

	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	691	117	1414	240	1.43	0.24	1.64	0.28
4009	608	119	1227	241	1.30	0.26	1.93	0.38
4010	630	125	1257	250	1.15	0.23	1.56	0.31
4011	781	145	1591	296	0.92	0.17	1.65	0.31
4012	742	131	1442	255	1.30	0.23	1.63	0.29
n	5	5	5	5	5	5	5	5
Mean	690	127	1386	256	1.22	0.23	1.68	0.31
S.D.	73	11	148	23	0.19	0.03	0.14	0.04

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : End of recovery

Sex : Female

Dose : Ethyl Stearate 0 mg/kg

Species : Rat

Animal No.	Body weight g	Brain AB g	Brain RE g/100g	Pituitary AB mg	Pituitary RE mg/100g	Thyroid-R AB mg	Thyroid-R RE mg/100g	Thyroid-L AB mg	Thyroid-L RE mg/100g
5106	253	1.84	0.73	13.9	5.5	6.4	2.5	9.6	3.8
5107	257	1.96	0.76	13.9	5.4	8.5	3.3	9.5	3.7
5108	263	2.00	0.76	14.2	5.4	9.5	3.6	9.2	3.5
5109	304	2.03	0.67	17.0	5.6	10.3	3.4	8.1	2.7
5110	289	2.10	0.73	16.7	5.8	8.7	3.0	7.2	2.5
n	5	5	5	5	5	5	5	5	5
Mean	273	1.99	0.73	15.1	5.5	8.7	3.2	8.7	3.2
S.D.	22	0.10	0.04	1.6	0.2	1.5	0.4	1.0	0.6

Animal No.	Thyroid-RL AB mg	Thyroid-RL RE mg/100g	Thymus AB mg	Thymus RE mg/100g	Heart AB g	Heart RE g/100g	Liver AB g	Liver RE g/100g	Spleen AB g	Spleen RE g/100g
5106	16.0	6.3	319	126	0.80	0.32	6.16	2.43	0.43	0.17
5107	18.0	7.0	175	68	0.97	0.38	6.08	2.37	0.41	0.16
5108	18.7	7.1	138	52	0.83	0.32	6.36	2.42	0.50	0.19
5109	18.4	6.1	140	46	1.06	0.35	8.09	2.66	0.41	0.13
5110	15.9	5.5	196	68	0.98	0.34	7.21	2.49	0.43	0.15
n	5	5	5	5	5	5	5	5	5	5
Mean	17.4	6.4	194	72	0.93	0.34	6.78	2.47	0.44	0.16
S.D.	1.3	0.7	74	32	0.11	0.02	0.86	0.11	0.04	0.02

Animal No.	Kidney-R AB g	Kidney-R RE g/100g	Kidney-L AB g	Kidney-L RE g/100g	Kidney-RL AB g	Kidney-RL RE g/100g	Adrenal-R AB mg	Adrenal-R RE mg/100g	Adrenal-L AB mg	Adrenal-L RE mg/100g
5106	0.91	0.36	0.89	0.35	1.80	0.71	26	10	27	11
5107	0.86	0.33	0.87	0.34	1.73	0.67	39	15	45	18
5108	0.92	0.35	0.93	0.35	1.85	0.70	28	11	30	11
5109	1.00	0.33	1.06	0.35	2.06	0.68	25	8	31	10
5110	1.09	0.38	1.04	0.36	2.13	0.74	30	10	38	13
n	5	5	5	5	5	5	5	5	5	5
Mean	0.96	0.35	0.96	0.35	1.91	0.70	30	11	34	13
S.D.	0.09	0.02	0.09	0.01	0.17	0.03	6	3	7	3

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 28 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 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	53	21	33.3	13.2	40.7	16.1	74.0	29.2	508	201
5107	84	33	47.5	18.5	49.5	19.3	97.0	37.7	415	161
5108	58	22	32.4	12.3	36.7	14.0	69.1	26.3	718	273
5109	56	18	42.6	14.0	45.1	14.8	87.7	28.8	667	219
5110	68	24	41.5	14.4	59.1	20.4	100.6	34.8	439	152
n	5	5	5	5	5	5	5	5	5	5
Mean	64	24	39.5	14.5	46.2	16.9	85.7	31.4	549	201
S.D.	13	6	6.5	2.4	8.6	2.8	13.8	4.7	136	49

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : End of recovery

Sex : Female

Dose : Ethyl Stearate 1000 mg/kg

Species : Rat

Animal No.	Body weight g	Brain AB g	Brain RE g/100g	Pituitary AB mg	Pituitary RE mg/100g	Thyroid-R AB mg	Thyroid-R RE mg/100g	Thyroid-L AB mg	Thyroid-L RE mg/100g
6106	270	2.12	0.79	16.2	6.0	10.2	3.8	7.4	2.7
6107	262	2.07	0.79	17.2	6.6	12.5	4.8	10.8	4.1
6108	285	1.93	0.68	15.9	5.6	8.3	2.9	11.1	3.9
6109	286	1.87	0.65	15.5	5.4	10.7	3.7	11.3	4.0
6110	266	1.83	0.69	14.2	5.3	7.1	2.7	7.9	3.0
n	5	5	5	5	5	5	5	5	5
Mean	274	1.96	0.72	15.8	5.8	9.8	3.6	9.7	3.5
S.D.	11	0.13	0.07	1.1	0.5	2.1	0.8	1.9	0.6

Animal No.	Thyroid-RL AB mg	Thyroid-RL RE mg/100g	Thymus AB mg	Thymus RE mg/100g	Heart AB g	Heart RE g/100g	Liver AB g	Liver RE g/100g	Spleen AB g	Spleen RE g/100g
6106	17.6	6.5	247	91	0.94	0.35	6.38	2.36	0.50	0.19
6107	23.3	8.9	265	101	0.87	0.33	6.64	2.53	0.38	0.15
6108	19.4	6.8	256	90	0.81	0.28	6.53	2.29	0.41	0.14
6109	22.0	7.7	379	133	0.95	0.33	6.99	2.44	0.45	0.16
6110	15.0	5.6	176	66	0.88	0.33	6.95	2.61	0.55	0.21
n	5	5	5	5	5	5	5	5	5	5
Mean	19.5	7.1	265	96	0.89	0.32	6.70	2.45	0.46	0.17
S.D.	3.3	1.3	73	24	0.06	0.03	0.27	0.13	0.07	0.03

Animal No.	Kidney-R AB g	Kidney-R RE g/100g	Kidney-L AB g	Kidney-L RE g/100g	Kidney-RL AB g	Kidney-RL RE g/100g	Adrenal-R AB mg	Adrenal-R RE mg/100g	Adrenal-L AB mg	Adrenal-L RE mg/100g
6106	0.95	0.35	0.89	0.33	1.84	0.68	22	8	23	9
6107	0.93	0.35	0.88	0.34	1.81	0.69	31	12	34	13
6108	0.93	0.33	0.92	0.32	1.85	0.65	32	11	35	12
6109	0.89	0.31	0.90	0.31	1.79	0.63	28	10	27	9
6110	0.90	0.34	0.91	0.34	1.81	0.68	36	14	33	12
n	5	5	5	5	5	5	5	5	5	5
Mean	0.92	0.34	0.90	0.33	1.82	0.67	30	11	30	11
S.D.	0.02	0.02	0.02	0.01	0.02	0.03	5	2	5	2

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 30 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : End of recovery

Sex : Female Dose : Ethyl Stearate 1000 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
6106	45	17	33.7	12.5	35.9	13.3	69.6	25.8	718	266
6107	65	25	45.7	17.4	35.5	13.5	81.2	31.0	615	235
6108	67	24	46.3	16.2	43.0	15.1	89.3	31.3	502	176
6109	55	19	39.0	13.6	43.2	15.1	82.2	28.7	496	173
6110	69	26	57.3	21.5	48.2	18.1	105.5	39.7	616	232
n	5	5	5	5	5	5	5	5	5	5
Mean	60	22	44.4	16.2	41.2	15.0	85.6	31.3	589	216
S.D.	10	4	8.9	3.5	5.4	1.9	13.2	5.2	93	41

AB : Absolute weight, RE : Relative weight by body weight

Appendix 8 - 31 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Organ weight Stage : Not copulated

Sex : Female Dose : Ethyl Stearate 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
1110	285	1.99	0.70	14.2	5.0	7.1	2.5	6.5	2.3
n	1	1	1	1	1	1	1	1	1
Mean	285	1.99	0.70	14.2	5.0	7.1	2.5	6.5	2.3
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
1110	13.6	4.8	241	85	0.92	0.32	7.54	2.65	0.52	0.18
n	1	1	1	1	1	1	1	1	1	1
Mean	13.6	4.8	241	85	0.92	0.32	7.54	2.65	0.52	0.18
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
1110	0.89	0.31	0.89	0.31	1.78	0.62	30	11	36	13
n	1	1	1	1	1	1	1	1	1	1
Mean	0.89	0.31	0.89	0.31	1.78	0.62	30	11	36	13
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
1110	66	23	47.1	16.5	46.3	16.2	93.4	32.8	587	206
n	1	1	1	1	1	1	1	1	1	1
Mean	66	23	47.1	16.5	46.3	16.2	93.4	32.8	587	206
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Organ weight

Stage : Not copulated

Sex : Female

Dose : Ethyl Stearate 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
2111	298	1.97	0.66	20.6	6.9	11.6	3.9	7.6	2.6
n	1	1	1	1	1	1	1	1	1
Mean	298	1.97	0.66	20.6	6.9	11.6	3.9	7.6	2.6
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
2111	19.2	6.4	188	63	0.97	0.33	7.49	2.51	0.44	0.15
n	1	1	1	1	1	1	1	1	1	1
Mean	19.2	6.4	188	63	0.97	0.33	7.49	2.51	0.44	0.15
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
2111	0.96	0.32	0.96	0.32	1.92	0.64	27	9	27	9
n	1	1	1	1	1	1	1	1	1	1
Mean	0.96	0.32	0.96	0.32	1.92	0.64	27	9	27	9
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
2111	54	18	51.8	17.4	51.1	17.1	102.9	34.5	478	160
n	1	1	1	1	1	1	1	1	1	1
Mean	54	18	51.8	17.4	51.1	17.1	102.9	34.5	478	160
S.D.										

AB : Absolute weight, RE : Relative weight by body weight

Appendix 9-1(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1001 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:

Kidney	Basophilia,tubular: minimal
Prostate	Cell infiltration: mild, lymphocytic ventral
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
Optic nerve, Parathyroid, Pancreas, Pituitary, Salivary gland,submandibular
Salivary gland,sublingual, Skin,inguinal, Sciatic nerve, Spleen
Skeletal muscle,femoral, Seminal vesicle(coagulating gland)
Spinal cord,thoracic, Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-2(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1002 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration: mild, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1004 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:

Prostate	Cell infiltration: minimal, lymphocytic ventral
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, Kidney
Lymph node,mesenteric, Lymph node,submandibular, Liver, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-5(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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: mild, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1007 Male 0 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-8(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1008 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

Kidney	Focus,depressed: 1 present, right 2x3mm
Other tissues	Not remarkable

Histopathology:

Kidney	Urinary cast,hyaline: minimal, unilateral Fibrosis,focal: mild, unilateral with mononuclear cell infiltration and tubular regeneration

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
Optic nerve, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-9(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1009 Male 0 mg/kg Day 57 End of recovery

Gross pathology:

All tissues	Not remarkable

Histopathology:

Pancreas	Atrophy,acinar,focal: 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, Liver, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Parathyroid, Pituitary, Prostate
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-10(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Testis	Atrophy,seminiferous tubular: minimal, bilateral

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, Optic nerve, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Thymus, Trachea
Thyroid, Urinary bladder

Appendix 9-11(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Liver	Microgranuloma: 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, Optic nerve, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-12(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-13(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

No tissues examined

Appendix 9-14(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2003 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-16(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2005 Male 100 mg/kg Day 43 End of administration

Gross pathology:

Lung(bronchus)	Focus,dark red: 1 present 10x5mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-18(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2010 Male 100 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-23(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-24(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3001 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-26(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3006 Male 300 mg/kg Day 43 End of administration

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-31(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Kidney	Basophilia,tubular: minimal
Lung(bronchus)	Aggregation,alveolar macrophage: minimal
Prostate	Cell infiltration: minimal, lymphocytic ventral and dorsolateral

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, Mammary gland,inguinal, Optic nerve
Parathyroid, Pancreas, Pituitary, Salivary gland,submandibular
Salivary gland,sublingual, Skin,inguinal, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland)
Spinal cord,thoracic, Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-39(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Pancreas	Fibrosis,islet: mild
Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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,pars distalis: minimal
Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4005 Male 1000 mg/kg Day 43 End of administration

Gross pathology:

All tissues	Not remarkable

Histopathology:

Prostate	Cell infiltration: mild, lymphocytic ventral
Testis	Atrophy,seminiferous tubular: minimal, bilateral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Thymus, Trachea
Thyroid, Urinary bladder

Appendix 9-42(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Kidney	Basophilia,tubular: minimal
Liver	Microgranuloma: 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, Lung(bronchus), Mammary gland,inguinal, Optic nerve
Parathyroid, Pancreas, Pituitary, Prostate, Salivary gland,submandibular
Salivary gland,sublingual, Skin,inguinal, Sciatic nerve, Spleen, Stomach
Skeletal muscle,femoral, Seminal vesicle(coagulating gland)
Spinal cord,thoracic, Testis, Thymus, Trachea, Thyroid, Urinary bladder

Appendix 9-45(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Prostate	Cell infiltration: minimal, inflammatory ventral and dorsolateral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-46(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

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, Optic nerve, Parathyroid, Pancreas, Pituitary, Prostate
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-47(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Prostate	Cell infiltration: mild, lymphocytic ventral

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, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-48(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Epididymis	Granuloma,spermatic: mild, unilateral
Liver	Microgranuloma: minimal
Prostate	Cell infiltration: minimal, lymphocytic ventral

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, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral
Seminal vesicle(coagulating gland), Spinal cord,thoracic, Testis, Thymus
Trachea, Thyroid, Urinary bladder

Appendix 9-49(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1101 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-50(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1102 Female 0 mg/kg Day 43 End of administration,Dams

Gross pathology:

Skin+Subcutis	Nodule: 1 present, subcutaneous perineal,15x15x10mm
Other tissues	Not remarkable

Histopathology:

Mammary gland,perineal	ADENOCARCINOMA

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-51(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1103 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-52(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1105 Female 0 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-54(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1106 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-55(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1107 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-56(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1108 Female 0 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-57(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1109 Female 0 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues	Not remarkable

Histopathology:

Liver	Microgranuloma: minimal
Lung(bronchus)	Aggregation,alveolar macrophage: 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, Mammary gland,inguinal
Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-58(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1110 Female 0 mg/kg Day 54 Undelivered

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-59(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1111 Female 0 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-60(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 1112 Female 0 mg/kg Day 43 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red,glandular stomach: 1 present 2x1mm
Other tissues	Not remarkable

Histopathology:

Pancreas	Basophilic focus,acinar cell: minimal
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, Optic nerve, Ovary, Parathyroid, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus
Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-61(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2101 Female 100 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-62(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2102 Female 100 mg/kg Day 49 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-63(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2103 Female 100 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-64(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2104 Female 100 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-65(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2105 Female 100 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-66(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2106 Female 100 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-67(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2107 Female 100 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-68(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2108 Female 100 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-69(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2109 Female 100 mg/kg Day 44 End of administration,Dams

Gross pathology:

Liver	Hepatodiaphragmatic nodule: 1 present 5x5x3mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-70(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2110 Female 100 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-71(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2111 Female 100 mg/kg Day 54 Undelivered

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-72(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 2112 Female 100 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-73(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3101 Female 300 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-74(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3102 Female 300 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-75(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3103 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-76(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3104 Female 300 mg/kg Day 44 End of administration,Dams

Gross pathology:

Stomach	Focus,white: 1 present, serosal 1x1mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-77(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3105 Female 300 mg/kg Day 43 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-78(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3106 Female 300 mg/kg Day 42 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-79(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3108 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-81(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3109 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-82(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3110 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-83(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3111 Female 300 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-84(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 3112 Female 300 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-85(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-87(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4103 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-88(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4104 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-89(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4105 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-90(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4106 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-91(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4107 Female 1000 mg/kg Day 45 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-92(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4108 Female 1000 mg/kg Day 44 End of administration,Dams

Gross pathology:

Stomach	Focus,dark red,glandular stomach: 1 present 1x3mm
Other tissues	Not remarkable

Histopathology:

No tissues examined

Appendix 9-93(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4109 Female 1000 mg/kg Day 46 End of administration,Dams

Gross pathology:

All tissues Not remarkable

Histopathology:

No tissues examined

Appendix 9-94(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

No tissues examined

Appendix 9-95(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-96(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 4112 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-97(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 5101 Female 0 mg/kg Day 43 End of administration

Gross pathology:

Ovary	Cyst: 1 present, left 3x3x3mm,No microscopic finding with necropsy data
Uterus	Aplasia: partial,left horn
Other 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-98(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus
Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-99(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-100(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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: 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus
Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-101(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 5105 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-102(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-103(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Pituitary	Cyst,pars distalis: 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, Optic nerve, Ovary, Parathyroid, Pancreas
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-104(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Liver	Microgranuloma: 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, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-105(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-106(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-107(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-108(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-109(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 6103 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-110(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-111(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Liver	Microgranuloma: 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, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-112(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 6106 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

Liver	Hepatodiaphragmatic nodule: 1 present 4x3x2mm
Other tissues	Not remarkable

Histopathology:

Liver	Hepatodiaphragmatic nodule: mild

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, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-113(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

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, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-114(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Individual gross and histopathological findings

Animal No. 6108 Female 1000 mg/kg Day 57 End of recovery

Gross pathology:

Stomach	Focus,dark red,glandular stomach: 1 present 1x3mm
Other tissues	Not remarkable

Histopathology:

Liver	Microgranuloma: minimal
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, Lung(bronchus)
Mammary gland,inguinal, Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Skeletal muscle,femoral, Spinal cord,thoracic, Thymus
Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-115(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Pituitary	Cyst,pars distalis: 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, Optic nerve, Ovary, Parathyroid, Pancreas
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 9-116(1/1) Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test 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:

Lung(bronchus)	Aggregation,alveolar macrophage: 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, Mammary gland,inguinal
Optic nerve, Ovary, Parathyroid, Pancreas, Pituitary
Salivary gland,submandibular, Salivary gland,sublingual, Skin,inguinal
Sciatic nerve, Spleen, Stomach, Skeletal muscle,femoral, Spinal cord,thoracic
Thymus, Trachea, Thyroid, Urinary bladder, Uterus, Vagina

Appendix 10 - 1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0

Dose : Ethyl Stearate 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	M	D	P	E	M	D
1102	E	M	D	P	E	M	D	P	E	M	D	P	E	M
1103	M	D	P	E	M	D	P	E	M	D	P	E	M	D
1104	P	E	M	D	P	E	M	D	P	E	M	D	P	E
1105	M	D	P	E	M	D	P	E	E	M	D	D	P	E
1106	E	M	D	P	E	M	D	P	E	M	D	P	E	M
1107	P	E	M	D	P	E	M	D	P	E	M	D	P	E
1108	E	M	D	P	E	E	M	D	P	E	M	D	P	E
1109	M	D	P	E	M	D	P	E	M	D	P	E	M	D
1110	P	E	M	D	P	E	M	D	P	E	M	D	D	P
1111	E	E	M	D	P	E	E	M	D	P	E	E	M	D
1112	P	E	M	D	P	E	M	D	P	E	M	D	E	M

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

Appendix 10 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Estrus cycles and copulation

Generation : F0 Dose : Ethyl Stearate 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	P	4	4		4.0	3	-
1102	D	4	4	4	4.0	4	-
1103	P	4	4		4.0	3	-
1104	M	4	4	4	4.0	4	-
1105	M	4	6		5.0	3	+
1106	D	4	4	4	4.0	4	-
1107	M	4	4	4	4.0	4	-
1108	M	4	5	4	4.3	4	-
1109	P	4	4		4.0	3	-
1110	E	4	4	5	4.3	4	-
1111	P	5	5		5.0	3	-
1112	D	4	4	3	3.7	4	+

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

Appendix 10 - 3

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0

Dose : Ethyl Stearate 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	M	D	P	E	M	D	P	E	M	D	P	E	M	D
2102	P	E	M	D	P	E	M	D	P	E	M	D	D	D
2103	D	P	E	M	D	P	E	M	D	P	E	M	D	P
2104	E	M	D	P	E	M	D	P	E	M	D	P	E	M
2105	P	E	M	D	P	E	M	D	P	E	M	D	P	E
2106	E	M	D	P	E	M	D	P	E	M	D	P	E	M
2107	D	P	E	M	D	P	E	M	D	P	E	M	D	P
2108	E	M	D	P	E	E	M	D	P	E	E	M	D	P
2109	P	E	M	D	P	E	M	D	P	E	M	D	P	E
2110	M	D	P	E	M	D	P	E	M	D	P	E	M	D
2111	P	E	M	D	P	E	M	D	P	E	M	D	P	E
2112	M	D	P	E	M	D	P	E	M	D	P	E	M	D

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

Appendix 10 - 4

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0 Dose : Ethyl Stearate 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	P	4	4		4.0	3	-
2102	D	4	4		4.0	3	+
2103	E	4	4	4	4.0	4	-
2104	D	4	4	4	4.0	4	-
2105	M	4	4	4	4.0	4	-
2106	D	4	4	4	4.0	4	-
2107	E	4	4	4	4.0	4	-
2108	E	4	5	5	4.7	4	-
2109	M	4	4	4	4.0	4	-
2110	P	4	4		4.0	3	-
2111	M	4	4	4	4.0	4	-
2112	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

Appendix 10 - 5

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0

Dose : Ethyl Stearate 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	D	P	E	M	D	P	E	M	D	P	E	M	D	P
3102	M	D	P	E	M	D	P	E	M	D	P	E	M	D
3103	E	M	D	P	E	E	M	D	P	E	E	M	D	P
3104	E	M	D	P	E	M	D	P	E	M	D	P	E	M
3105	P	E	M	D	P	E	M	D	P	E	E	D	D	D
3106	M	D	P	E	M	D	P	E	M	D	P	E	M	D
3107	E	M	D	P	E	M	D	P	E	M	D	P	E	M
3108	P	E	M	D	P	E	M	D	P	E	M	D	P	E
3109	P	E	M	D	P	E	M	D	P	E	M	D	P	E
3110	P	E	M	D	P	E	M	D	P	E	M	D	P	E
3111	D	P	E	M	D	P	E	M	D	P	E	M	D	P
3112	E	M	D	P	E	M	D	P	E	M	D	P	E	M

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

Appendix 10 - 6

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0 Dose : Ethyl Stearate 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	E	4	4	4	4.0	4	-
3102	D	4	4		4.0	3	-
3103	E	4	5	5	4.7	4	-
3104	D	4	4	4	4.0	4	-
3105	D	4	4		4.0	3	+
3106	P	4	4		4.0	3	-
3107	D	4	4	4	4.0	4	-
3108	M	4	4	4	4.0	4	-
3109	M	4	4	4	4.0	4	-
3110	M	4	4	4	4.0	4	-
3111	E	4	4	4	4.0	4	-
3112	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

Appendix 10 - 7

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0

Dose : Ethyl Stearate 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	M	D	P	E	M	D	P	E	M	D	P	E	M	D
4103	M	D	P	E	M	D	P	E	M	D	P	E	M	D
4104	E	M	D	P	E	M	D	P	E	M	D	P	E	M
4105	P	E	M	D	P	E	M	D	P	E	M	D	P	E
4106	D	P	E	M	D	P	E	M	D	D	P	E	M	D
4107	M	D	P	E	M	D	P	E	M	D	D	P	E	M
4108	E	M	D	P	E	M	D	P	E	M	D	P	E	M
4109	D	P	E	M	D	P	E	M	D	P	E	M	D	P
4110	P	E	M	D	P	E	M	D	P	E	M	D	P	E
4111	M	D	P	E	M	D	P	E	M	D	P	E	M	D
4112	E	E	M	D	P	E	E	M	D	P	E	E	M	D

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

Appendix 10 - 8

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Estrus cycles and copulation

Study No. : R-1191

Generation : F0 Dose : Ethyl Stearate 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	P	4	4		4.0	3	-
4103	P	4	4		4.0	3	-
4104	D	4	4	4	4.0	4	-
4105	M	4	4	4	4.0	4	-
4106	P	4	5		4.5	3	-
4107	D	4	5		4.5	3	-
4108	D	4	4	4	4.0	4	-
4109	E	4	4	4	4.0	4	-
4110	M	4	4	4	4.0	4	-
4111	P	4	4		4.0	3	-
4112	P	5	5		5.0	3	-

P : Proestrus, E : Estrus, M : Metestrus, D : Diestrus

+ : Animal with abnormal estrous cycle, - : Animal with normal and regular cycle

Appendix 11 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Male Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
1001	1	1101	+	+
1002	2	1102	+	+
1003	1	1103	+	+
1004	3	1104	+	+
1005	3	1105	+	+
1006	2	1106	+	+
1007	3	1107	+	+
1008	3	1108	+	+
1009	1	1109	+	+
1010	-	1110	-	
1011	2	1111	+	+
1012	2	1112	+	+
n	11		12	11
Mean	2.1			
S.D.	0.8			
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

Appendix 11 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Male Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
2001	1	2101	+	+
2002	8	2102	+	+
2003	4	2103	+	+
2004	2	2104	+	+
2005	3	2105	+	+
2006	2	2106	+	+
2007	4	2107	+	+
2008	1	2108	+	+
2009	3	2109	+	+
2010	1	2110	+	+
2011	-	2111	-	
2012	1	2112	+	+
n	11		12	11
Mean	2.7			
S.D.	2.1			
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

Appendix 11 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Male Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
3001	4	3101	+	+
3002	2	3102	+	+
3003	1	3103	+	+
3004	2	3104	+	+
3005	1	3105	+	+
3006	1	3106	+	+
3007	2	3107	+	+
3008	3	3108	+	+
3009	3	3109	+	+
3010	3	3110	+	+
3011	4	3111	+	+
3012	2	3112	+	+
n	12		12	12
Mean	2.3			
S.D.	1.1			
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

Appendix 11 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Male Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
4001	3	4101	+	+
4002	1	4102	+	+
4003	1	4103	+	+
4004	2	4104	+	+
4005	3	4105	+	+
4006	2	4106	+	+
4007	3	4107	+	+
4008	2	4108	+	+
4009	4	4109	+	+
4010	3	4110	+	+
4011	1	4111	+	+
4012	1	4112	+	+
n	12		12	12
Mean	2.2			
S.D.	1.0			
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

Appendix 11 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Female Dose : Ethyl Stearate 0 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
1101	1	1001	+	+
1102	2	1002	+	+
1103	1	1003	+	+
1104	3	1004	+	+
1105	3	1005	+	+
1106	2	1006	+	+
1107	3	1007	+	+
1108	3	1008	+	+
1109	1	1009	+	+
1110	-	1010	-	
1111	2	1011	+	+
1112	2	1012	+	+
n	11		12	11
Mean	2.1			
S.D.	0.8			
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

Appendix 11 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Female Dose : Ethyl Stearate 100 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
2101	1	2001	+	+
2102	8	2002	+	+
2103	4	2003	+	+
2104	2	2004	+	+
2105	3	2005	+	+
2106	2	2006	+	+
2107	4	2007	+	+
2108	1	2008	+	+
2109	3	2009	+	+
2110	1	2010	+	+
2111	-	2011	-	
2112	1	2012	+	+
n	11		12	11
Mean	2.7			
S.D.	2.1			
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

Appendix 11 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Female Dose : Ethyl Stearate 300 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
3101	4	3001	+	+
3102	2	3002	+	+
3103	1	3003	+	+
3104	2	3004	+	+
3105	1	3005	+	+
3106	1	3006	+	+
3107	2	3007	+	+
3108	3	3008	+	+
3109	3	3009	+	+
3110	3	3010	+	+
3111	4	3011	+	+
3112	2	3012	+	+
n	12		12	12
Mean	2.3			
S.D.	1.1			
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

Appendix 11 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Reproductive performance

Generation : F0 Sex : Female Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Animal No.	Elapsed day of conceiving a)	1st mating Paired animal	Copulation b)	Fertility c)
4101	3	4001	+	+
4102	1	4002	+	+
4103	1	4003	+	+
4104	2	4004	+	+
4105	3	4005	+	+
4106	2	4006	+	+
4107	3	4007	+	+
4108	2	4008	+	+
4109	4	4009	+	+
4110	3	4010	+	+
4111	1	4011	+	+
4112	1	4012	+	+
n	12		12	12
Mean	2.2			
S.D.	1.0			
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

Appendix 12 - 1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Delivery data

Generation : F0

Dose : Ethyl Stearate 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	17(8/9)	17(8/9)	0.0	100.0	100.0	100.0	17	8	9	17	0	0	0	0
1102	21.5	15(8/7)	15(8/7)	0.0	100.0	86.7	100.0	13	7	6	13	0	0	0	0
1103	22.5	18(9/9)	16(7/9)	11.1	88.9	93.8	100.0	15	9	6	15	0	0	0	0
1104	22	15(8/7)	15(8/7)	0.0	100.0	93.3	100.0	14	8	6	14	0	0	0	0
1105	22	17(7/10)	17(7/10)	0.0	100.0	94.1	100.0	16	6	10	16	0	0	0	0
1106	22.5	16(9/7)	16(9/7)	0.0	100.0	100.0	100.0	16	5	11	16	0	0	0	0
1107	21.5	13(7/6)	11(5/6)	15.4	84.6	100.0	100.0	11	7	4	11	0	0	0	0
1108	22	18(11/7)	18(11/7)	0.0	100.0	100.0	100.0	18	4	14	18	0	0	0	0
1109	21.5	17(6/11)	17(6/11)	0.0	100.0	82.4	100.0	14	3	11	14	0	0	0	0
1111	22	14(6/8)	13(5/8)	7.1	92.9	69.2	100.0	9	5	4	9	0	0	0	0
1112	21.5	16(8/8)	16(8/8)	0.0	100.0	100.0	100.0	16	8	8	16	0	0	0	0
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	21.9	16.0	15.5	3.1	96.9	92.7	100.0	14.5	6.4	8.1	14.5	0.0	0.0	0.0	0.0
S.D.	0.4	1.6	2.0	5.6	5.6	9.8	0.0	2.7	1.9	3.2	2.7	0.0	0.0	0.0	0.0

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

Animal No. 1110 : 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

Appendix 12 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Delivery data

Generation : F0 Dose : Ethyl Stearate 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
2101	22.5	15(10/5)	14(10/4)	6.7	93.3	85.7	100.0	12	3	9	12	0	0	0	0
2102	21.5	8(8/0)	8(8/0)	0.0	100.0	100.0	100.0	8	3	5	8	0	0	0	0
2103	22.5	14(3/11)	13(2/11)	7.1	92.9	92.3	100.0	12	5	7	12	0	0	0	0
2104	22	14(7/7)	13(6/7)	7.1	92.9	100.0	100.0	13	8	5	13	0	0	0	0
2105	22	16(7/9)	16(7/9)	0.0	100.0	93.8	100.0	15	9	6	15	0	0	0	0
2106	22.5	16(8/8)	15(8/7)	6.3	93.8	93.3	100.0	14	4	10	14	0	0	0	0
2107	22	17(7/10)	16(6/10)	5.9	94.1	93.8	100.0	15	8	7	15	0	0	0	0
2108	22	14(4/10)	14(4/10)	0.0	100.0	100.0	100.0	14	9	5	14	0	0	0	0
2109	21.5	15(8/7)	14(8/6)	6.7	93.3	100.0	100.0	14	5	9	14	0	0	0	0
2110	21.5	16(11/5)	15(10/5)	6.3	93.8	93.3	100.0	14	4	10	14	0	0	0	0
2112	21.5	16(10/6)	15(9/6)	6.3	93.8	100.0	100.0	15	9	6	15	0	0	0	0
n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Mean	22.0	14.6	13.9	4.8	95.3	95.7	100.0	13.3	6.1	7.2	13.3	0.0	0.0	0.0	0.0
S.D.	0.4	2.4	2.2	3.1	3.1	4.7	0.0	2.1	2.5	2.0	2.1	0.0	0.0	0.0	0.0

(/) : Right/Left, M : Male, F : Female, U : Unable to be sexed

Animal No. 2111 : 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

Appendix 12 - 3

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Delivery data

Generation : F0

Dose : Ethyl Stearate 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	22.5	16(8/8)	14(7/7)	12.5	87.5	100.0	100.0	14	9	5	14	0	0	0	0
3102	22	17(8/9)	16(7/9)	5.9	94.1	100.0	100.0	16	7	9	16	0	0	0	0
3103	22	15(9/6)	14(8/6)	6.7	93.3	100.0	100.0	14	7	7	14	0	0	0	0
3104	22	15(8/7)	15(8/7)	0.0	100.0	93.3	100.0	14	8	6	14	0	0	0	0
3105	22	17(8/9)	16(8/8)	5.9	94.1	100.0	100.0	16	6	10	16	0	0	0	0
3106	21.5	15(6/9)	15(6/9)	0.0	100.0	86.7	100.0	13	7	6	13	0	0	0	0
3107	21.5	15(8/7)	15(8/7)	0.0	100.0	100.0	100.0	15	6	9	15	0	0	0	0
3108	22	13(8/5)	13(8/5)	0.0	100.0	100.0	100.0	13	6	7	13	0	0	0	0
3109	22	18(10/8)	16(9/7)	11.1	88.9	93.8	100.0	15	6	9	15	0	0	0	0
3110	22	17(8/9)	17(8/9)	0.0	100.0	100.0	100.0	17	8	9	17	0	0	0	0
3111	21	14(9/5)	14(9/5)	0.0	100.0	100.0	100.0	14	8	6	14	0	0	0	0
3112	22	19(6/13)	17(4/13)	10.5	89.5	100.0	100.0	17	8	9	17	0	0	0	0
n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mean	21.9	15.9	15.2	4.4	95.6	97.8	100.0	14.8	7.2	7.7	14.8	0.0	0.0	0.0	0.0
S.D.	0.4	1.7	1.3	5.0	5.0	4.3	0.0	1.4	1.0	1.7	1.4	0.0	0.0	0.0	0.0

(/) : 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

Appendix 12 - 4

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Delivery data

Generation : F0

Dose : Ethyl Stearate 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	17(10/7)	16(10/6)	5.9	94.1	100.0	100.0	16	9	7	16	0	0	0	0
4102	22.5	18(8/10)	18(8/10)	0.0	100.0	100.0	100.0	18	10	8	18	0	0	0	0
4103	22	17(12/5)	17(12/5)	0.0	100.0	100.0	100.0	17	3	14	17	0	0	0	0
4104	22	15(4/11)	13(2/11)	13.3	86.7	92.3	100.0	12	6	6	12	0	0	0	0
4105	21.5	16(8/8)	15(8/7)	6.3	93.8	86.7	100.0	13	6	7	13	0	0	0	0
4106	22	16(6/10)	14(4/10)	12.5	87.5	100.0	100.0	14	4	10	14	0	0	0	0
4107	22.5	16(8/8)	15(7/8)	6.3	93.8	93.3	100.0	14	7	7	14	0	0	0	0
4108	22	15(5/10)	14(4/10)	6.7	93.3	92.9	100.0	13	8	5	13	0	0	0	0
4109	22	18(10/8)	17(10/7)	5.6	94.4	100.0	100.0	17	13	4	17	0	0	0	0
4110	21.5	18(9/9)	17(8/9)	5.6	94.4	94.1	93.8	16	6	9	15	0	1	0	1
4111	22	16(10/6)	14(10/4)	12.5	87.5	92.9	100.0	13	9	4	13	0	0	0	0
4112	22.5	17(11/6)	15(11/4)	11.8	88.2	100.0	100.0	15	7	8	15	0	0	0	0
n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mean	22.0	16.6	15.4	7.2	92.8	96.0	99.5	14.8	7.3	7.4	14.8	0.0	0.1	0.0	0.1
S.D.	0.3	1.1	1.6	4.5	4.5	4.5	1.8	1.9	2.7	2.8	1.9	0.0	0.3	0.0	0.3

(/) : 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

Appendix 13 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
1101	17	No anomaly	0 (0.0)
1102	13	No anomaly	0 (0.0)
1103	15	No anomaly	0 (0.0)
1104	14	No anomaly	0 (0.0)
1105	16	No anomaly	0 (0.0)
1106	16	No anomaly	0 (0.0)
1107	11	No anomaly	0 (0.0)
1108	18	No anomaly	0 (0.0)
1109	14	No anomaly	0 (0.0)
1111	9	No anomaly	0 (0.0)
1112	16	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

Animal No. 1110 : Not copulated

Appendix 13 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
2101	12	No anomaly	0 (0.0)
2102	8	No anomaly	0 (0.0)
2103	12	No anomaly	0 (0.0)
2104	13	No anomaly	0 (0.0)
2105	15	No anomaly	0 (0.0)
2106	14	No anomaly	0 (0.0)
2107	15	No anomaly	0 (0.0)
2108	14	No anomaly	0 (0.0)
2109	14	No anomaly	0 (0.0)
2110	14	No anomaly	0 (0.0)
2112	15	No anomaly	0 (0.0)
Total	146		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

Animal No. 2111 : Not copulated

Appendix 13 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
3101	14	No anomaly	0 (0.0)
3102	16	No anomaly	0 (0.0)
3103	14	No anomaly	0 (0.0)
3104	14	No anomaly	0 (0.0)
3105	16	No anomaly	0 (0.0)
3106	13	No anomaly	0 (0.0)
3107	15	No anomaly	0 (0.0)
3108	13	No anomaly	0 (0.0)
3109	15	No anomaly	0 (0.0)
3110	17	No anomaly	0 (0.0)
3111	14	No anomaly	0 (0.0)
3112	17	No anomaly	0 (0.0)
Total	178		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

Appendix 13 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring (incidence %) Days after birth : 0

Generation : F0 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings	Number of offspring with any anomaly (%)a)
4101	16	No anomaly	0 (0.0)
4102	18	No anomaly	0 (0.0)
4103	17	No anomaly	0 (0.0)
4104	12	No anomaly	0 (0.0)
4105	13	No anomaly	0 (0.0)
4106	14	No anomaly	0 (0.0)
4107	14	No anomaly	0 (0.0)
4108	13	No anomaly	0 (0.0)
4109	17	No anomaly	0 (0.0)
4110	16	No anomaly	0 (0.0)
4111	13	No anomaly	0 (0.0)
4112	15	No anomaly	0 (0.0)
Total	178		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

Appendix 13 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
1101	17	No anomaly
1102	13	No anomaly
1103	15	No anomaly
1104	14	No anomaly
1105	15	No anomaly
1106	15	No anomaly
1107	11	No anomaly
1108	18	No anomaly
1109	13	No anomaly
1111	9	No anomaly
1112	15	No anomaly
Total	155	
n	11	

Animal No. 1110 : Not copulated

Appendix 13 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
2101	12	No anomaly
2102	8	No anomaly
2103	12	No anomaly
2104	13	No anomaly
2105	15	No anomaly
2106	14	No anomaly
2107	15	No anomaly
2108	14	No anomaly
2109	14	No anomaly
2110	14	No anomaly
2112	14	No anomaly
Total	145	
n	11	

Animal No. 2111 : Not copulated

Appendix 13 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : Ethyl Stearate 300 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
3101	14	No anomaly
3102	16	No anomaly
3103	14	No anomaly
3104	14	No anomaly
3105	16	No anomaly
3106	13	No anomaly
3107	15	No anomaly
3108	13	No anomaly
3109	15	No anomaly
3110	17	No anomaly
3111	13	No anomaly
3112	17	No anomaly
Total	177	
n	12	

Appendix 13 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of offspring Unit : Number of anomalous offspring Days after birth : 4

Generation : F0 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
4101	16	No anomaly
4102	16	No anomaly
4103	17	No anomaly
4104	12	No anomaly
4105	13	No anomaly
4106	14	No anomaly
4107	14	No anomaly
4108	13	No anomaly
4109	17	No anomaly
4110	15	No anomaly
4111	12	No anomaly
4112	15	No anomaly
Total	174	
n	12	

Appendix 14 - 1

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0 | Dose : Ethyl Stearate 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	17	17	100.0	8	9	
1102	13	13	100.0	7	6	
1103	15	15	100.0	9	6	
1104	14	14	100.0	8	6	
1105	16	15	93.8	6	9	
1106	16	15	93.8	5	10	
1107	11	11	100.0	7	4	
1108	18	18	100.0	4	14	
1109	14	13	92.9	3	10	
1111	9	9	100.0	5	4	
1112	16	15	93.8	7	8	
n	11	11	11			69/155
Mean	14.5	14.1	97.7			44.5
S.D.	2.7	2.5	3.3			

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

Animal No. 1110 : Not copulated

Appendix 14 - 2

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0 | Dose : Ethyl Stearate 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)
2101	12	12	100.0	3	9	
2102	8	8	100.0	3	5	
2103	12	12	100.0	5	7	
2104	13	13	100.0	8	5	
2105	15	15	100.0	9	6	
2106	14	14	100.0	4	10	
2107	15	15	100.0	8	7	
2108	14	14	100.0	9	5	
2109	14	14	100.0	5	9	
2110	14	14	100.0	4	10	
2112	15	14	93.3	8	6	
n	11	11	11			66/145
Mean	13.3	13.2	99.4			45.5
S.D.	2.1	2.0	2.0			

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

Animal No. 2111 : Not copulated

Appendix 14 - 3

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0 Dose : Ethyl Stearate 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	14	14	100.0	9	5	
3102	16	16	100.0	7	9	
3103	14	14	100.0	7	7	
3104	14	14	100.0	8	6	
3105	16	16	100.0	6	10	
3106	13	13	100.0	7	6	
3107	15	15	100.0	6	9	
3108	13	13	100.0	6	7	
3109	15	15	100.0	6	9	
3110	17	17	100.0	8	9	
3111	14	13	92.9	8	5	
3112	17	17	100.0	8	9	
n	12	12	12			86/177
Mean	14.8	14.8	99.4			48.6
S.D.	1.4	1.5	2.0			

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

Appendix 14 - 4

Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats

Study No. : R-1191

Viability index and sex ratio of offspring on day 4 after birth

Generation : F0 | Dose : Ethyl Stearate 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	16	16	100.0	9	7	
4102	18	16	88.9	9	7	
4103	17	17	100.0	3	14	
4104	12	12	100.0	6	6	
4105	13	13	100.0	6	7	
4106	14	14	100.0	4	10	
4107	14	14	100.0	7	7	
4108	13	13	100.0	8	5	
4109	17	17	100.0	13	4	
4110	15	15	100.0	6	9	
4111	13	12	92.3	8	4	
4112	15	15	100.0	7	8	
n	12	12	12			86/174
Mean	14.8	14.5	98.4			49.4
S.D.	1.9	1.8	3.7			

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

Appendix 15 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight of offspring

Generation : F0 Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth 0 n	0 B.W.	4/Pre-culled n	4/Pre-culled B.W.
1101	Male	8	6.3	8	9.5
	Female	9	5.6	9	8.7
1102	Male	7	5.8	7	8.4
	Female	6	5.4	6	7.9
1103	Male	9	6.7	9	11.4
	Female	6	6.3	6	10.5
1104	Male	8	6.5	8	10.1
	Female	6	5.9	6	9.4
1105	Male	6	6.3	6	10.3
	Female	10	6.4	9	10.4
1106	Male	5	6.1	5	9.9
	Female	11	5.7	10	9.7
1107	Male	7	6.5	7	9.7
	Female	4	6.3	4	9.7
1108	Male	4	6.5	4	9.9
	Female	14	5.8	14	9.2
1109	Male	3	6.4	3	10.6
	Female	11	5.9	10	9.3
1111	Male	5	7.6	5	12.0
	Female	4	6.8	4	11.1
1112	Male	8	6.1	7	8.7
	Female	8	5.9	8	8.4
n	Male	70		69	
	Female	89		86	
Mean	Male		6.4		10.0
	Female		6.0		9.5
S.D.	Male		0.5		1.0
	Female		0.4		0.9

Animal No. 1110 : Not copulated

Appendix 15 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight of offspring

Generation : F0 Dose : Ethyl Stearate 100 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth 0 n	0 B.W.	4/Pre-culled n	4/Pre-culled B.W.
2101	Male	3	7.1	3	11.3
	Female	9	6.6	9	10.9
2102	Male	3	6.0	3	11.9
	Female	5	5.8	5	10.8
2103	Male	5	6.4	5	11.2
	Female	7	5.8	7	10.0
2104	Male	8	7.0	8	11.5
	Female	5	6.7	5	11.0
2105	Male	9	6.6	9	10.6
	Female	6	6.1	6	10.0
2106	Male	4	6.7	4	10.2
	Female	10	6.3	10	9.7
2107	Male	8	6.5	8	9.3
	Female	7	6.1	7	8.6
2108	Male	9	7.1	9	10.8
	Female	5	6.7	5	10.8
2109	Male	5	6.3	5	8.9
	Female	9	5.9	9	9.3
2110	Male	4	6.4	4	9.0
	Female	10	6.1	10	8.7
2112	Male	9	6.4	8	9.6
	Female	6	5.8	6	9.2
n	Male	67		66	
	Female	79		79	
Mean	Male		6.6		10.4
	Female		6.2		9.9
S.D.	Male		0.4		1.1
	Female		0.4		0.9

Animal No. 2111 : Not copulated

Appendix 15 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight of offspring

Generation : F0 Dose : Ethyl Stearate 300 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth 0 n	0 B.W.	4/Pre-culled n	4/Pre-culled B.W.
3101	Male	9	6.3	9	9.9
	Female	5	6.8	5	10.7
3102	Male	7	6.3	7	10.6
	Female	9	5.9	9	9.8
3103	Male	7	7.1	7	11.5
	Female	7	6.5	7	10.6
3104	Male	8	6.5	8	10.9
	Female	6	6.4	6	10.6
3105	Male	6	6.7	6	10.6
	Female	10	6.4	10	10.0
3106	Male	7	6.2	7	9.8
	Female	6	5.9	6	9.6
3107	Male	6	5.9	6	9.4
	Female	9	5.6	9	8.7
3108	Male	6	6.7	6	10.6
	Female	7	6.2	7	10.0
3109	Male	6	6.5	6	10.0
	Female	9	6.5	9	10.2
3110	Male	8	6.0	8	9.0
	Female	9	5.8	9	9.4
3111	Male	8	5.9	8	9.4
	Female	6	5.9	5	9.5
3112	Male	8	6.4	8	10.3
	Female	9	6.0	9	9.7
n	Male	86		86	
	Female	92		91	
Mean	Male		6.4		10.2
	Female		6.2		9.9
S.D.	Male		0.4		0.7
	Female		0.4		0.6

Appendix 15 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight of offspring

Generation : F0 Dose : Ethyl Stearate 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	9	6.8	9	10.2
	Female	7	6.4	7	9.4
4102	Male	10	6.2	9	10.0
	Female	8	6.0	7	9.4
4103	Male	3	6.4	3	10.1
	Female	14	6.3	14	9.3
4104	Male	6	6.7	6	11.7
	Female	6	6.7	6	11.7
4105	Male	6	6.0	6	9.3
	Female	7	5.7	7	9.1
4106	Male	4	6.6	4	10.7
	Female	10	6.1	10	9.7
4107	Male	7	7.4	7	11.2
	Female	7	7.0	7	10.8
4108	Male	8	6.3	8	9.7
	Female	5	6.8	5	10.4
4109	Male	13	6.0	13	9.9
	Female	4	5.9	4	9.4
4110	Male	6	5.8	6	9.4
	Female	9	5.5	9	8.9
4111	Male	9	6.7	8	11.0
	Female	4	6.6	4	10.7
4112	Male	7	6.7	7	10.3
	Female	8	6.5	8	10.0
n	Male	88		86	
	Female	89		88	
Mean	Male		6.5		10.3
	Female		6.3		9.9
S.D.	Male		0.4		0.7
	Female		0.5		0.8

Appendix 15 - 5 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight gain of offspring Base : Day 4 after birth

Generation : F0 Dose : Ethyl Stearate 0 mg/kg Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
1101	Male	8	3.2
	Female	9	3.1
1102	Male	7	2.6
	Female	6	2.5
1103	Male	9	4.7
	Female	6	4.2
1104	Male	8	3.6
	Female	6	3.5
1105	Male	6	4.0
	Female	9	4.0
1106	Male	5	3.8
	Female	10	4.0
1107	Male	7	3.2
	Female	4	3.4
1108	Male	4	3.4
	Female	14	3.4
1109	Male	3	4.2
	Female	10	3.4
1111	Male	5	4.4
	Female	4	4.3
1112	Male	7	2.6
	Female	8	2.5
n	Male	69	
	Female	86	
Mean	Male		3.6
	Female		3.5
S.D.	Male		0.7
	Female		0.6

Animal No. 1110 : Not copulated

Appendix 15 - 6 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight gain of offspring

Generation : F0 Dose : Ethyl Stearate 100 mg/kg Base : Day 4 after birth

Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
2101	Male	3	4.2
	Female	9	4.3
2102	Male	3	5.9
	Female	5	5.0
2103	Male	5	4.8
	Female	7	4.2
2104	Male	8	4.5
	Female	5	4.3
2105	Male	9	4.0
	Female	6	3.9
2106	Male	4	3.5
	Female	10	3.4
2107	Male	8	2.8
	Female	7	2.5
2108	Male	9	3.7
	Female	5	4.1
2109	Male	5	2.6
	Female	9	3.4
2110	Male	4	2.6
	Female	10	2.6
2112	Male	8	3.2
	Female	6	3.4
n	Male	66	
	Female	79	
Mean	Male		3.8
	Female		3.7
S.D.	Male		1.0
	Female		0.8

Animal No. 2111 : Not copulated

Appendix 15 - 7 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight gain of offspring

Generation : F0 Dose : Ethyl Stearate 300 mg/kg Base : Day 4 after birth

Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
3101	Male	9	3.6
	Female	5	3.9
3102	Male	7	4.3
	Female	9	3.9
3103	Male	7	4.4
	Female	7	4.1
3104	Male	8	4.4
	Female	6	4.2
3105	Male	6	3.9
	Female	10	3.6
3106	Male	7	3.6
	Female	6	3.7
3107	Male	6	3.5
	Female	9	3.1
3108	Male	6	3.9
	Female	7	3.8
3109	Male	6	3.5
	Female	9	3.7
3110	Male	8	3.0
	Female	9	3.6
3111	Male	8	3.5
	Female	5	3.6
3112	Male	8	3.9
	Female	9	3.7
n	Male	86	
	Female	91	
Mean	Male		3.8
	Female		3.7
S.D.	Male		0.4
	Female		0.3

Appendix 15 - 8 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

Body weight gain of offspring

Generation : F0 Dose : Ethyl Stearate 1000 mg/kg Base : Day 4 after birth

Unit : g Species : Rat

Dam No.	Sex	/Days after birth /Before culling n	0-4
4101	Male	9	3.4
	Female	7	3.0
4102	Male	9	3.8
	Female	7	3.4
4103	Male	3	3.7
	Female	14	3.0
4104	Male	6	5.0
	Female	6	5.0
4105	Male	6	3.3
	Female	7	3.4
4106	Male	4	4.1
	Female	10	3.6
4107	Male	7	3.8
	Female	7	3.8
4108	Male	8	3.4
	Female	5	3.6
4109	Male	13	3.9
	Female	4	3.5
4110	Male	6	3.6
	Female	9	3.4
4111	Male	8	4.3
	Female	4	4.1
4112	Male	7	3.6
	Female	8	3.5
n	Male	86	
	Female	88	
Mean	Male		3.8
	Female		3.6
S.D.	Male		0.5
	Female		0.5

Appendix 16 - 1 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : Ethyl Stearate 0 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
1101	0	
1102	0	
1103	0	
1104	0	
1105	0	
1106	1	No anomaly
1107	0	
1108	0	
1109	0	
1111	0	
1112	1	No anomaly
Total	2	
n	11	

Animal No. 1110 : Not copulated

Appendix 16 - 2 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : Ethyl Stearate 100 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
2101	0	
2102	0	
2103	0	
2104	0	
2105	0	
2106	0	
2107	0	
2108	0	
2109	0	
2110	0	
2112	1	No anomaly
Total	1	
n	11	

Animal No. 2111 : Not copulated

Appendix 16 - 3 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : Ethyl Stearate 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	0	
3112	0	
Total	0	
n	12	

Appendix 16 - 4 Ethyl Stearate: An oral combined repeated dose toxicity study with the reproduction/developmental toxicity screening test in rats Study No. : R-1191

External examination of dead offspring Unit : Number of anomalous offspring

Generation : F0 Dose : Ethyl Stearate 1000 mg/kg Species : Rat

Dam No.	Number of offspring examined	/Findings
4101	0	
4102	2	No anomaly
4103	0	
4104	0	
4105	0	
4106	0	
4107	0	
4108	0	
4109	0	
4110	0	
4111	1	No anomaly
4112	0	
Total	3	
n	12	

信頼性保証書（1/3）

試験番号　：　R-1191

試験表題　：　エチル＝ステアラート：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。

2017 年 3 月 30 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]	2016 年　9 月 28 日	2016 年　9 月 28 日
作業予定表・コンピュータプロトコール		2016 年 10 月 11 日	2016 年 10 月 12 日
改善確認		2016 年 10 月 14 日	2016 年 10 月 14 日
試験計画書変更書（1）		2016 年 10 月 12 日	2016 年 10 月 12 日
調製・保存（被験物質）		2016 年 10 月 12 日	2016 年 10 月 12 日
投与液の濃度確認		2016 年 10 月 12 日	2016 年 10 月 12 日
群分け		2016 年 10 月 16 日	2016 年 10 月 17 日
体重・摂餌量測定・投与・一般状態の観察・膣垢検査		2016 年 10 月 17 日	2016 年 10 月 17 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
詳細な一般状態の観察	[redacted]	2016年 10月 18日	2016年 10月 18日
交配		2016年 11月 1日	2016年 11月 1日
試験計画書変更書（2）		2016年 11月 7日	2016年 11月 7日
機能検査・握力・自発運動量の測定		2016年 11月 22日	2016年 11月 22日
分娩・哺育観察・体重測定		2016年 11月 22日	2016年 11月 22日
尿検査（尿量・色調・定性・沈渣）		2016年 11月 24日	2016年 11月 25日
採血・剖検		2016年 11月 28日	2016年 11月 28日
病理組織学検査（切り出し）		2016年 12月 2日	2016年 12月 2日
被験物質の安定性		2016年 12月 14日	2016年 12月 14日
生データ		2017年 3月 17日	
		2017年 3月 20日	
		2017年 3月 21日	
		2017年 3月 22日	
		2017年 3月 23日	
		2017年 3月 24日	
		2017年 3月 29日	2017年 3月 29日
改善確認		2017年 3月 30日	2017年 3月 30日
図・表・付表		2017年 3月 17日	
		2017年 3月 21日	
		2017年 3月 22日	
		2017年 3月 23日	
		2017年 3月 24日	
		2017年 3月 25日	2017年 3月 27日
改善確認		2017年 3月 29日	2017年 3月 29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]	2017年　3月 23日	
		2017年　3月 24日	
		2017年　3月 25日	
		2017年　3月 27日	2017年　3月 28日
改善確認		2017年　3月 29日	2017年　3月 29日
最終報告書		2017年　3月 30日	2017年　3月 30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
動物入荷	B-8043	[redacted]	2016年　8月　8日	2016年　8月　8日
検疫・馴化	B-8043		2016年　8月　8日	2016年　8月　8日
	B-8043		2016年　8月 15日	2016年　8月 15日
尿検査（浸透圧・電解質）	B-8044		2016年 10月 17日	2016年 10月 17日
血液学検査・血液化学検査	B-8123		2016年 10月 13日	2016年 10月 14日
病理組織学検査（包埋・薄切・染色）	B-8082		2016年 10月　3日	2016年 10月　3日
	B-8082		2016年 10月　4日	2016年 10月　4日
	B-8082		2016年 10月　6日	2016年 10月　7日
	R-1192		2017年　1月　4日	2017年　1月　4日
	R-1192		2017年　1月　5日	2017年　1月　6日
	R-1192		2017年　1月　6日	2017年　1月　6日