SECTION 1 IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier: Ethyl Acetate

145400, 145420, 145900, 146400, 146501, 1473
Synonyms, Trade Names: ETHYL ACETATE 98 - 100%, ACETIC ACID ETHYL ESTER, ACETOXYETHANE
REACH Registration Number: 01-2119475103-46-XXXX
CAS-No: 141-78-6
EU Index No: 607-022-00-5
EC No: 205-500-4

1.2 Relevant identified uses of the substance or mixture and uses advised against: laboratory chemical for the removal of fat from faecal samples.

1.3 Details of the supplier of the Safety Data Sheet: Apacor Limited, Unit 5 Sapphire Centre, Fishponds Road, Wokingham, Berkshire, RG41 2QL, England
+44 (0) 118 979 5566
technical@apacor.com

1.4 Emergency telephone number:
+44 (0)118 979 5566
(Monday-Friday 0900-1700 excluding UK Public Holidays)

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]:
Flam. Liq. 2 - H225
STOT SE 3 - H336
Eye Irrit. 2 – H319
See Section 16 for the full text of H-Statements mentioned in this Section.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 [CLP]
Pictogram
Signal word Danger
Hazard Statements
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary Statements
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261 Avoid breathing vapour/spray.
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/container in accordance with national regulations.

Supplemental Label Information
EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards
Not classified as PBT/vPvB by current EU criteria.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Hazardous ingredients according to Regulation (EC) No 1272/2008
Product Name: ETHYL ACETATE
REACH Registration Number: 01-2119475103-46-XXXX
CAS-No: 141-78-6
EU Index No: 607-022-00-5
EC No: 205-500-4
Composition Comments: The data shown are in accordance with the latest EC Directives.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: Remove affected person from source of contamination. Get medical attention if any discomfort continues.
In case of skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
In case of eye contact: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.
If swallowed: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed
If inhaled: Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
In case of skin contact: Prolonged contact may cause redness, irritation and dry skin.
In case of eye contact: May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed
Notes for doctor: No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5 FIRE FIGHTING MEASURES

5.1 Extinguishing Media: Suitable extinguishing media: alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2 Special Hazards Arising from the Substance or Mixture
Specific Hazards: Carbon oxides.
5.3 Advice for Fire-fighters

Protective Equipment for Fire-fighters: Positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Follow precautions for safe handling described in this safety data sheet. Take precautionary measures against static discharges. Avoid inhalation of vapours and contact with skin and eyes.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be immediately alerted to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions: Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Storage class: Flammable liquid storage.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8 EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1 Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA – 8 Hrs</th>
<th>STEL – 15 Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Acetate</td>
<td>WEL</td>
<td>200 ppm</td>
<td>400 ppm</td>
</tr>
</tbody>
</table>

(WEL = Workplace Exposure Limit)

Ingredient Comments

- DNEL Industry Inhalation: 1468 mg/m³
- DNEL Consumer Inhalation: 734 mg/m³
- DNEL Industry Dermal Long Term: 63 mg/kg/day
- DNEL Industry Inhalation Long Term: 734 mg/m³
- DNEL Consumer Dermal Long Term: 37 mg/kg/day
- DNEL Consumer Inhalation Long Term: 367 mg/m³
- PNEC Freshwater: 0.26
- PNEC Soil: 0.22 mg/kg
- PNEC Sediment: 0.34 mg/kg
- PNEC STP: 650 mg/l

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protective equipment

(a) Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
(b) Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves should satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Butyl rubber gloves are recommended.
(c) Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Other Protection: Wear rubber apron. Wear rubber footwear.
(d) Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU), fitted with type A2 gas filter cartridge.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance: Form: colourless liquid
b) Odour: Fruity
c) Odour threshold: no data available
d) pH: no data available
e) Melting point / freezing point: -83.8°C
f) Initial boiling point and boiling range: 76-77°C
g) Flash point: -4°C closed cup
h) Evaporation rate: 4.5 (diethyl ether=1)
i) Flammability (solid, gas): no data available
j) Upper/lower flammability or explosive limits: 2.2% lower, 11.5% upper
k) Vapour pressure: no data available
l) Vapour density: 3.04
m) Relative density: 0.899 – 0.903 @ 20°C
n) Solubility (ies): soluble in water
o) Partition coefficient: n-octanol/water: 0.68
p) Auto-ignition temperature: 427°C
q) Decomposition temperature: no data available
r) Viscosity: 0.4508 mPas @ 20°C
s) Explosive properties: no data available
t) Oxidising properties: no data available

9.2 Other information
Mol. Weight: 88.11

SECTION 10 STABILITY AND REACTIVITY
10.1 Reactivity
No known reactivity hazards associated with this product.

10.2 Chemical stability
Stable under normal ambient temperature conditions and recommended use.

10.3 Possibility of hazardous reactions
Hazardous Polymerisation: Will not polymerise.

10.4 Conditions to avoid
Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials
Materials To Avoid: Strong oxidising substances.

10.6 Hazardous decomposition products
Oxides of: Carbon.

SECTION 11 TOXICOLOGICAL INFORMATION
11.1 Information of toxicological effects
Acute toxicity:
(Oral LD50): 4934 mg/kg Rabbit OECD 401
(Dermal LD50): > 20000 mg/kg Rabbit OECD 404

Skin corrosion/irritation: Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation: Slightly irritating.

Respiratory or skin sensitisation: Irritating to respiratory system. Vapours have a narcotic effect and may cause headache, fatigue, dizziness, nausea and vomiting.

Germ cell mutagenicity: no data available

Carcinogenicity: no data available

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information
Ingestion: May cause discomfort if swallowed. Narcotic effect.

SECTION 12 ECOLOGICAL INFORMATION
12.1 Toxicity
Ecotoxicity: The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

<table>
<thead>
<tr>
<th>Toxicity to Fish</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Ethyl Acetate</td>
<td>LC50 96 hours 230 mg/l Pimephales promelas (Fat-head Minnow)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicity to Daphnia and other Aquatic Invertebrates</th>
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<tbody>
<tr>
<td>Ethyl Acetate</td>
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</table>

12.2 Persistence and degradability
The product is readily biodegradable.

12.3 Bioaccumulative potential
No data available. Partition coefficient: 0.68

12.4 Mobility in soil
The product is soluble in water. Surface Tension: 24 mN/m 20.

12.5 Results of PBT and vPvB assessment
Not Classified as PBT/vPvB by current EU criteria.

12.6 Other adverse effects
Not determined.

SECTION 13 DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods
General Information: Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Do not puncture or incinerate even when empty. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14 TRANSPORT INFORMATION
14.1 UN number (ADR/RID/IMDG/ICAO) 1173
14.2 UN proper shipping name Ethyl Acetate
14.3 Transport hazard class(es)
ADR/RID/IMDG/ICAO Class: 3
ADR Label No: 3
IMDG Class: 3
ICAO Class/Division: 3
Transport label:

14.4 Packing group
ADR/RID/IMDG/ICAO Packing group: II

14.5 Environmental hazards
No

14.6 Special precautions for user
EMS: F-E, S-D
Emergency Action Code: • 3YE
Hazard Identification No. (ADR/RID): 33
Tunnel Restriction Code: (D/E)

SECTION 15 REGULATORY INFORMATION
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This product may impact SEVESO storage regulations.

Guidance: CHIP for everyone HSG228.
Workplace Exposure Limits EH40.
Safety Data Sheets for Substances and Preparations.
Approved Classification and Labelling Guide (Sixth edition)
L131.
DSEAR

Water Hazard Classification: WGK 1

15.2 Chemical Safety Assessment
A chemical safety assessment has not been carried out.

Inventory Information: TSCA EINECS PICCS NZIOC KECL ISHL ENCS
AICS DSL IECS

SECTION 16 OTHER INFORMATION

Hazard Statements in Full

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

The information supplied in this SDS is correct to the best of our knowledge. We do not accept any liability for loss, injury or damage, which may result from its use.