SAFETY DATA SHEET

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

1.1 *Product identifiers*

Product name: **ETHYL ACETATE**

CAS-No.: **141-78-6**

Product Number: **A67805**

1.2 *Relevant identified uses of the substance or mixture and uses advised against*

Identified uses: Laboratory chemicals, Manufacture of substances

1.3 *Details of the supplier of the safety data sheet*

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR, UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4 *Emergency telephone number*

Emergency Phone #: **+44 (0)845 1200 506**

2. HAZARDS IDENTIFICATION

2.1 *Classification of the substance or mixture*

According to Regulation (EC) No1272/2008; Flammable liquids (Category 2); Eye irritation (Category 2); Specific target organ toxicity - single exposure (Category 3).

According to European Directive 67/548/EEC as amended: Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

2.2 *Label elements*

Pictogram 

Signal word Danger

Hazard statement(s): 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.

Precautionary statement(s): P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazard symbol(s): F Highly flammable Xi Irritant

R-phrase(s): R11 Highly flammable. R36 Irritating to eyes. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.

S-phrase(s): S16 Keep away from sources of ignition - No smoking. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S33 Take precautionary measures against static discharges.

2.3 ***Other hazards*** – no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 ***Substances***

Ethyl acetate

Formula:	$CH_3COOC_2H_5$
Molecular Weight:	**88.11g/mol**
CAS-No.:	**141-78-6**
EC-No.:	**205-500-4**
Index-No.:	**607-022-00-5**

4. FIRST AID MEASURES

4.1 ***Description of first aid measures***

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 ***Most important symptoms and effects, both acute and delayed:*** no data available

4.3 ***Indication of immediate medical attention and special treatment needed:*** no data available

5. FIRE-FIGHTING MEASURES

5.1 ***Extinguishing media***

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2 ***Special hazards arising from the substance or mixture:*** no data available

5.3 ***Precautions for fire-fighters:*** Wear self contained breathing apparatus for fire fighting if necessary.

5.4 ***Further information:*** Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 ***Personal precautions, protective equipment and emergency procedures:*** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 ***Environmental precautions:*** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 ***Methods and materials for containment and cleaning up:*** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 ***Reference to other sections:*** For disposal see section 13.

7. HANDLING AND STORAGE

7.1 ***Precautions for safe handling:*** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 ***Conditions for safe storage, including any incompatibilities:*** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 ***Specific end uses:*** no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ***Control parameters***

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Ethyl acetate	141-78-6	TWA	200ppm	2005-04-06
Ethyl acetate	141-78-6	STEL	400ppm	2005-04-06

UK. EH40 Occupational Exposure Limits

8.2 ***Exposure controls***

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection: Face shield and safety glasses

Skin protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Body Protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance:	**Form**: Liquid **Colour**: colourless
b) Odour:	no data available
c) Odour Threshold:	no data available
d) pH:	84 °C
e) Melting/freezing point:	Melting point/range: no data available
f) Initial boiling point and boiling range:	76.5 - 77.5 °C
g) Flash point:	3.0 °C - closed cup
h) Evaporation rate:	no data available
i) Flammability (solid, gas):	no data available
j) Upper/lower flammability or explosive limits:	2.2-11.5%(V)
k) Vapour pressure:	97.3 hPa at 20.0 °C
l) Vapour density:	no data available
m) Relative density:	0.902 g/mL at 25 °C
n) Water solubility:	soluble
o) Partition coefficient: n-octanol/water:	0.73
p) Autoignition temperature:	427 °C
q) Decomposition temperature:	no data available
r) Viscosity:	no data available
s) Explosive properties:	no data available
t) Oxidizing properties:	no data available

9.2 *Other safety information*

no data available

10. STABILITY AND REACTIVITY

10.1 ***Reactivity:*** no data available

10.2 ***Chemical stability:*** Stable under recommended storage conditions.

10.3 ***Possibility of hazardous reactions:*** no data available

10.4 ***Conditions to avoid:*** Heat, flames and sparks.

10.5 ***Incompatible materials:*** Strong oxidizing agents

10.6 ***Hazardous decomposition products:*** Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity: LD50 Oral - rat - 5,620 mg/kg

LC50 Inhalation - mouse - 2 h - 45,000 mg/m^3

LD50 Dermal - rabbit - > 180,000 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: May cause damage to organs.

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

Eyes Causes eye irritation.

Signs and Symptoms of Exposure: Central nervous system depression, Drowsiness, narcosis, anemia

Additional Information: RTECS: AH5425000

12. ECOLOGICAL INFORMATION

12.1 *Toxicity:* Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 350-600mg/L-96 h

LC50 - *Pimephales promelas* (fathead minnow) – 220-250mg/L-96 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - *Daphnia magna* (Water flea) - 2,300-3,090mg/L-24 h

LC50 - *Daphnia magna* (Water flea) - 560mg/L-48h

Toxicity to algae EC50 - No information available. - 4,300mg/L-24 h

EC50 - *SELENASTRUM* - 1,800.00 - 3,200.00 mg/L-72 h

12.2 *Persistence and degradability:* no data available

12.3 *Bioaccumulative potential:* no data available

12.4 *Mobility in soil:* no data available

12.5 *Results of PBT and vPvB assessment:* no data available

12.6 *Other adverse effects:* no data available

13. DISPOSAL CONSIDERATIONS

13.1 *Waste treatment methods*

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 *UN-Number*

ADR/RID:	1173	IMDG:	1173	IATA:	1173

14.2 *UN proper shipping name*

ADR/RID:	ETHYL ACETATE
IMDG:	ETHYL ACETATE
IATA:	ETHYL ACETATE

14.3 *Transport hazard class(es)*

ADR/RID:	3	IMDG:	3	IATA:	3

14.4 *Packaging group*

ADR/RID:	II	IMDG:	II	IATA:	II

14.5 *Environmental hazards*

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 *Special precautions for users:* EMS-No: F-E, S-D

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 *Safety, health and environmental regulations/legislation specific for the substance or mixture:* no data available

15.2 *Chemical Safety Assessment:* no data available

16. OTHER INFORMATION: EUH066 Repeated exposure may cause skin dryness or cracking. Eye Irrit. Eye irritation. Flam. Liq. Flammable liquids. H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. STOT SE Specific target organ toxicity - single exposure. F Highly flammable. Xi Irritant. R11 Highly flammable. R36 Irritating to eyes. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.