

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

1.1 Product identifiers

Product name: **1-PROPANOL**

CAS-No.: **71-23-8**

Product Number: **A70671**

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), Serious eye damage (Category 1), Specific target organ toxicity - single exposure (Category 3)

According to European Directive 67/548/EEC as amended: Highly flammable. Vapours may cause drowsiness and dizziness. Risk of serious damage to eyes.

2.2 Label elements

Pictogram



Signal word

Danger

Hazard statement(s): H225 Highly flammable liquid and vapour. H318 Causes serious eye damage. H336 May cause drowsiness or dizziness.

Precautionary statement(s): P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/eye protection/face protection. 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):



R-phrases(s): R11 Highly flammable. R41 Risk of serious damage to eyes. R67 Vapours may cause drowsiness and dizziness.

S-phrases(s): S 7 Keep container tightly closed. S16 Keep away from sources of ignition - No smoking. S24 Avoid contact with skin. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39 Wear eye/face protection.

2.3 Other hazards – no data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

N-Propanol (Synonyms : Propyl alcohol)

Formula: **CH₃CH₂CH₂OH**

Molecular Weight: **60.1**

CAS-No.: **71-23-8**

EC-No.: **200-746-9**

Index-No.: **603-003-00-0**

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 vapors, 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 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 |
|------------|---------|-------|-----------------------------|------------|
| N-Propanol | 71-23-8 | STEL | 250ppm 625mg/m ³ | 2005-04-06 |
| N-Propanol | 71-23-8 | TWA | 200ppm 500mg/m ³ | 2005-04-06 |

UK. EH40 Occupational Exposure Limits Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

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: Clear / Colourless |
| b) Odour: | no data available | |
| c) Odour Threshold: | no data available | |
| d) pH: | pH 8.5 at 200 g/l at 20 °C | |
| e) Melting/freezing point: | 127 °C | Melting point/range: no data available |
| f) Initial boiling point and boiling range: | 97 °C | |
| g) Flash point: | 22 °C - closed cup | |
| h) Evaporation rate: | 1 | |
| i) Flammability (solid, gas): | no data available | |
| j) Upper/lower flammability or explosive limits: | 2.1-13.7% (V) | |
| k) Vapour pressure: | 19.3 hPa at 20 °C | |
| l) Vapour density: | 2.07 - (Air = 1.0) | |
| m) Relative density: | 0.804 g/cm ³ at 25 °C | |
| n) Water solubility: | completely soluble | |
| o) Partition coefficient: n-octanol/water: | 0.25 - 0.34 | |
| p) Autoignition temperature: | 395 °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: formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity: LD50 Oral - rat - 8,038 mg/kg

LC50 Inhalation - rat - 1 h - 20000 ppm

LC50 Dermal - rabbit - 4,000 mg/kg

Skin corrosion/irritation: Skin - rabbit - Mild skin irritation
Serious eye damage/eye irritation: Eyes - rabbit - Severe eye irritation
Respiratory or skin sensitization: no data available
Germ cell mutagenicity: no data available
Carcinogenicity: 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.

Eyes Causes serious eye irritation.

Signs and Symptoms of Exposure: Central nervous system depression, prolonged or repeated exposure can cause:, narcosis, Skin irritation

Additional Information: RTECS: UH8225000

12. ECOLOGICAL INFORMATION

12.1 Toxicity: Toxicity to fish LC50 - *Pimephales promelas* (fathead minnow) - 1,000 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates.

EC50 - *Daphnia magna* (Water flea) - 3,642 mg/l - 48 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: 1274 IMDG: 1274 IATA: 1274

14.2 UN proper shipping name

ADR/RID: n-PROPANOL

IMDG: n-PROPANOL

IATA: n-PROPANOL

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

Eye Dam. Serious eye damage

Flam. Liq. Flammable liquids

H225 Highly flammable liquid and vapour.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

STOT SE Specific target organ toxicity - single exposure

F Highly flammable

Xi Irritant

R11 Highly flammable.

R41 Risk of serious damage to eyes.

R67 Vapours may cause drowsiness and dizziness.