

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifiers**Product name: **METHANOL**CAS-No.: **67-56-1**Product Number: **A69279****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), Specific target organ toxicity - single exposure (Category 1), Acute toxicity, Inhalation (Category 3), Acute toxicity, Dermal (Category 3), Acute toxicity, Oral (Category 3)

**According to European Directive 67/548/EEC as amended:** Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**2.2 Label elements**

Pictogram

Signal word

Danger

**Hazard statement(s):** H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H370 Causes damage to organs.

**Precautionary statement(s):** P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P307 + P311 IF exposed: Call a POISON CENTER or doctor/physician.



**Hazard symbol(s):**

**R-phrase(s):** R11 Highly flammable. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

**S-phrase(s):** S7 Keep container tightly closed. S16 Keep away from sources of ignition - No smoking. S36/37 Wear suitable protective clothing and gloves. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

**Methanol** (Synonyms : Methyl alcohol)

Formula: **CH<sub>3</sub>OH**

Molecular Weight: **32.04**

CAS-No.: **67-56-1**

EC-No.: **200-659-6**

Index-No.: **603-001-00-X**

### 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. Take victim immediately to hospital.

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

**If swallowed:** 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:** Wear respiratory protection. 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
Methanol	67-56-1	STEL	250ppm 333mg/m <sup>3</sup>	2005-04-06
Methanol	67-56-1	TWA	200ppm 266mg/m <sup>3</sup>	2005-04-06
Methanol	67-56-1	TWA	200ppm 260mg/m <sup>3</sup>	2006-02-09

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

Europe Indicative occupational exposure limit values Identifies the possibility of significant uptake through the skin Indicative

### 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:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**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 in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (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:                                   | <b>Form:</b> Liquid                         | <b>Colour:</b> Colourless              |
| b) Odour:  | no data available                           |  |
| c) Odour Threshold:                              | no data available                           |  |
| d) pH:   | no data available                           |  |
| e) Melting/freezing point:                       | 98 °C                                       | Melting point/range: no data available |
| f) Initial boiling point and boiling range:      | 64.7 °C                                     |  |
| g) Flash point:                                  | 11.0 °C - closed cup                        |  |
| h) Evaporation rate:                             | no data available                           |  |
| i) Flammability (solid, gas):                    | no data available                           |  |
| j) Upper/lower flammability or explosive limits: | 6 – 36% (V)                                 |  |
| k) Vapour pressure:                              | 546.6 hPa at 50.0 °C / 130.3 hPa at 20.0 °C |  |
| l) Vapour density:                               | no data available                           |  |
| m) Relative density:                             | 0.791 g/mL at 25 °C                         |  |
| n) Water solubility:                             | completely miscible                         |  |
| o) Partition coefficient: n-octanol/water:       | -0.77                                       |  |
| p) Autoignition temperature:                     | 455 °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:** Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids

**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 - 5,628 mg/kg

LC50 Inhalation - rat - 4 h - 64000 ppm

LD50 Dermal - rabbit - 15,800 mg/kg

**Skin corrosion/irritation:** Skin - rabbit - Skin irritation - 24 h

**Serious eye damage/eye irritation:** Eyes - rabbit - Eye irritation - 24 h

**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:** Causes damage to organs.

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

### Potential health effects

**Inhalation** Toxic if inhaled. May cause respiratory tract irritation.

**Ingestion** Toxic if swallowed.

**Skin** Toxic if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure:** Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non-poisonous., Effects due to ingestion may include:, Nausea, Headache, Vomiting, Gastrointestinal disturbance, Dizziness, Weakness, Confusion., Drowsiness, Unconsciousness, May cause convulsions.

**Additional Information:** RTECS: PC1400000

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity:** Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 19,000.00 mg/l - 96 h

LC50 - *Cyprinus carpio* (Carp) - 36,000.00 mg/l - 48 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - *Daphnia magna* (Water flea) - 24,500.00 mg/l - 48 h

EC100 - *Daphnia magna* (Water flea) - 10,000.00 mg/l - 24 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: 1230 IMDG: 1230 IATA: 1230

#### 14.2 UN proper shipping name

ADR/RID: METHANOL

IMDG: METHANOL

IATA: METHANOL

#### 14.3 Transport hazard class(es)

ADR/RID: 3(6.1) IMDG: 3(6.1) IATA: 3(6.1)

#### 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.

### 16. OTHER INFORMATION

Acute Tox. Acute toxicity, Flam. Liq. Flammable liquids, H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H370 Causes damage to organs. STOT SE Specific target organ toxicity - single exposure, F Highly flammable, T Toxic, R11 Highly flammable. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.