

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier****Product name:** ISOBUTANOL**CAS number:** 78-83-1**Product code:** A69462**Synonyms:** 2-METHYLPROPAN-1-01

2-METHYL-1-PROPANOL ISO-BUTYL ALCOHOL ISO-BUTANOL

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet****Company name:** Philip Harris Ltd

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

**Tel:** +44 (0)845 1200 506**Fax:** +44 (0)161 367 2140**Email:** [enquiries@philipharris.co.uk](mailto:enquiries@philipharris.co.uk)**1.4. Emergency telephone number****Emergency tel:** +44 (0) 845 1200 506**Section 2: Hazards identification****2.1. Classification of the substance or mixture****Classification under CLP:** Flam. Liq. 3: H226; Skin Irrit. 2: H315; Eye Dam. 1: H318; STOT SE 3: H335; STOT SE 3: H336**Classification under CHIP:** -: R10; Xi: R37/38; Xi: R41; -: R67**Most important adverse effects:** Flammable liquid and vapour. May cause respiratory irritation. Causes skin irritation.  
Causes serious eye damage. May cause drowsiness or dizziness.**2.2. Label elements****Label elements under CLP:****Hazard statements:** H226: Flammable liquid and vapour.

H335: May cause respiratory irritation.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H336: May cause drowsiness or dizziness.

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**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS05: Corrosion

GHS07: Exclamation mark



**Precautionary statements:** P210: Keep away from . - No smoking.

P243: Take precautionary measures against static discharge.

P280: Wear.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P309: IF exposed or if you feel unwell:

P310: Immediately call a POISON CENTER or doctor.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** ISOBUTANOL

**Contains:** Molecular Formula : C<sub>4</sub>H<sub>10</sub>O

Molecular Weight (g/mol) : 74.12g/mol

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a Doctor

**Eye contact:** Bathe the eye with running water for 15 minutes. Protect Uninjured eye. Remove contact lenses, if present and easy to do. Consult a doctor.

**Ingestion:** Immediately call the POISON CENTRE or a doctor. Rinse mouth thoroughly with water. Do not induce vomiting. Give nothing to eat or drink.

**Inhalation:** Immediately call the POISON CENTRE or a doctor. Move to fresh air in case of accidental inhalation of vapours. Keep Patient warm. If breathing is irregular or stopped, administer artificial respiration.

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## 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** May be harmful if swallowed.

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

## 4.3. Indication of any immediate medical attention and special treatment needed

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Water spray ABC-Powder Carbon Dioxide (CO<sub>2</sub>) Nitrogen

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In case of fire may be liberated: Carbon Dioxide (CO<sub>2</sub>) Carbon monoxide

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** DO NOT fight fire when fire reaches explosives. Wear self-contained breathing apparatus.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. Use personal protection equipment. The accumulation in low lying or closed rooms can cause increased danger of fire and explosion. The vapour of the product is heavier than air and may accumulate below ground level in pits, channels & basements in higher concentrations. Avoid breathing vapors, mist or gas. Remove sources of ignition. In case of major fire and large quantities: Remove persons to safety.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Spilled product must never be returned to the original container for recycling. Prevent spread over a wide area (e.g. by containment or oil barriers). Soak up inert absorbent and dispose as waste requiring special attention.

### 6.4. Reference to other sections

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical

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means. Usual measures for fire prevention. Take precautionary measures against static discharge. Keep away from sources of ignition - no smoking. Handle under (Gas): Nitrogen. Protect from moisture.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Storage temperature 15-25°C Tightly Closed. Dry. Store in a cool, dry place. Keep container tightly closed.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Workplace exposure limits:** No data available.

### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Technical measures and the application of suitable work processes have priority over personal protection equipment. If handle uncovered, arrangements with local exhaust ventilation have to be used.

**Respiratory protection:** Respiratory protection (filtering half face mask DIN EN 149) is required at aerosol or mist formation.

**Hand protection:** By short-term hand contact wear Nitrile Rubber Gloves, 0.12mm thick with a breakthrough time of 60-120 mins. For long term hand contact wear nitrile rubber gloves, 0.38mm thick with a breakthrough time of 480mins.

**Eye protection:** Safety glasses with side-shields.

**Skin protection:** Wash hands before breaks and after work. Avoid contact with skin and eyes. Flame retardent antistatic protective clothing. When using do not eat, drink or smoke.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Colourless

**Odour:** No data available

**Evaporation rate:** No data available

**Oxidising:** No data available

**Solubility in water:** 80 g/l (20°C)

**Also soluble in:** No data available.

**Viscosity:** No data available

**Viscosity test method:** No data available.

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**Boiling point/range°C:** 107.9°C (1013 hPa)      **Melting point/range°C:** -108°C  
**Flammability limits %:** lower: 1.2      **upper:** 12  
**Flash point°C:** 28°C      **Part.coeff. n-octanol/water:** 0.76 (20°C)  
**Autoflammability°C:** 430°C      **Vapour pressure:** 10,6 hPa (20°C)  
**Relative density:** 0.802 g/cm<sup>3</sup> (20°C)

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No data available.

### 10.2. Chemical stability

**Chemical stability:** No data available.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No data available.

### 10.4. Conditions to avoid

**Conditions to avoid:** No data available

### 10.5. Incompatible materials

**Materials to avoid:** No data available.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** No data available.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Based on test data
Serious eye damage/irritation	OPT	Based on test data
STOT-single exposure	INH	Based on test data

### Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** May be harmful if swallowed.

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.

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## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:** No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Partition coefficient: n-octanol/water 0.76 (20°C)

### 12.4. Mobility in soil

**Mobility:** No data available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT substance.

### 12.6. Other adverse effects

**Other adverse effects:** No data available.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1212

### 14.2. UN proper shipping name

**Shipping name:** ISOBUTANOL (ISOBUTYL ALCOHOL)

### 14.3. Transport hazard class(es)

**Transport class:** 3

### 14.4. Packing group

**Packing group:** III

### 14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant:** No

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## 14.6. Special precautions for user

Tunnel code: D/E

Transport category: 3

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2. Chemical Safety Assessment

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and 3:** H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

R10: Flammable.

R37/38: Irritating to respiratory system and skin.

R41: Risk of serious damage to eyes.

R67: Vapours may cause drowsiness and dizziness.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.