

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Version number: 10 Revision Date: 05.06.2014

**Product Name: Isopropanol**



## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING**

### **1.1. Product identifier**

**Trade name:** Isopropanol

**CAS number:** 67-63-0

**EC number:** 200-661-7

**Index number:** 603-117-00-0

**Registration number:** 01-2119457558-25-XXXX

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

Solvent for Industrial use

Manufacture of Substance

Distribution of substance

Laboratory

Cleaning Agents

Adhesives

Blending and packing of mixtures

Process chemical

#### **• Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU2b Offshore industries

SU5 Manufacture of textiles, leather, fur

SU6b Manufacture of pulp, paper and paper products

SU8 Manufacture of bulk, large scale chemicals (including petroleum products)

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU11 Manufacture of rubber products

SU12 Manufacture of plastics products, including compounding and conversion

SU24 Scientific research and development

#### **• Application of the substance / the mixture Solvent**

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

#### **Company:**

Kilo Ltd

Ham Lane

Kingswinford

West Midlands

DY6 7JU

[info@kiloltd.co.uk](mailto:info@kiloltd.co.uk)

#### **Emergency telephone number:**

+44 (0) 1384 293222 (Mon-Fri 9am – 5pm)

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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS02 flame

*Flam. Liq. 2 H225 Highly flammable liquid and vapour.*



GHS07

*Eye Irrit. 2 H319 Causes serious eye irritation.*

*STOT SE 3 H336 May cause drowsiness or dizziness.*

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



*Xi; Irritant*

*R36: Irritating to eyes.*



*F; Highly flammable*

*R11: Highly flammable.*

*R67: Vapours may cause drowsiness and dizziness.*

· Information concerning particular hazards for human and environment:

*Vapours of the product are heavier than air and may accumulate on the ground, in the sump of pits, drains or cellars with higher concentrations. Ground level ventilation is recommended.*

*May have a narcotizing effect after prolonged exposure (see R67)*

### 2.2. Label elements

· Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS02



GHS07

· Signal word Danger

· Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

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## • Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## • 2.3 Other hazards

### • Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### • 3.1 Chemical characterisation: Substances

#### • CAS No. Description

67-63-0 propan-2-ol

#### • Identification number(s)

• **EC number:** 200-661-7

• **Index number:** 603-117-00-0

• **SVHC** Not listed as a SVHC at the date of this document

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures:

#### • After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

Seek immediate medical advice.

#### • After skin contact:

Repeated skin contact may result in irritation and dermatitis. Always wear protective gloves suitable for this product. Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing.

#### • After eye contact:

Rinse opened eye for at least 15 minutes under clean running water. Remove contact lenses if possible. Seek immediate medical advice.

Continue to irrigate the eye with clean water.

Seek immediate medical advice.

#### • After swallowing:

Do NOT induce vomiting; rinse mouth with water, call for medical help immediately.

Rinse out mouth and then drink plenty of water if patient is fully conscious.

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

Headache

Dizziness

Nausea

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

No further relevant information available.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media:

#### • Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with aqueous film forming foam (AFFF). Cool containers with water spray.

• For safety reasons unsuitable extinguishing agents: Water with full jet

### 5.2. Special hazards arising from the substances or mixture:

Carbon monoxide (CO), if incomplete combustion.

### 5.3. Advice for firefighters:

• Protective equipment: Respiratory protective device.

• Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective clothing.

### 6.2. Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles - may need to be UN approved.

Blanket spillage with AFFF Foam Spray to seal from sources of ignition as a precautionary measure.

### 6.4. Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.



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### **SECTION 7: HANDLING AND STORAGE**

#### **7.1. Precautions for safe handling:**

Store in cool, dry place in tightly closed receptacles.

Take note of emission threshold.

Use only in well ventilated areas.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

#### **• Information about fire - and explosion protection:**

Keep ignition sources away - no naked sparks/flames/fires. Ensure electrical equipment is protected to correct Zone rating (DSEAR Assessed)

Protect against electrostatic charges. Where required - ensure bonding and earthing of containers and process equipment.

Static generation and accumulation may be increased when using fine filters, strainers, mixing with powders and immiscible liquids, high energy/speed mixers. Take extra precautions. Allow static relaxation time for charges to dissipate before next steps. Do not splash fill.

Do not spray onto a naked flame, hot surfaces, electrical switchgear, live/battery connected electrics, or near to any potential sources of ignition.

Flammable gas-air mixtures may form in empty receptacles.

Wear shoes with conductive soles.

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

##### **• Storage:**

##### **• Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Provide solvent resistant, sealed floor.

Prevent any seepage into the ground.

Provide ventilation for receptacles.

Use only receptacles specifically permitted for this substance/product.

Unsuitable material for receptacle: aluminium.

Store in area marked with EX signs under Dangerous Substances and Explosive Atmosphere Regs.

Follow HSE guidance for storage of flammable substances.

Flameproof/explosion proof electrical equipment must be used (ATEX Regulations)

Only store in suitable bunded storage areas. Do not store plastic IBC's with metal drums of other flammable substances.

##### **• Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Store away from oxidising agents.

##### **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Store receptacle in a well ventilated area.

You are recommended to refer to HSE publications HSG51 - The Storage of Flammable Liquids in Containers; and HSG140 - The Safe Use and Handling of Flammable Liquids, for more detailed understanding of the practices to be adhered to.

Composite plastic IBC's risk sudden and total loss of product in event of fire. Ensure bunded areas are adequate. Ideally, do not store composite plastic IBC's with other packaged flammable goods.

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· **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

### **8.1. Control parameters:**

· Ingredients with limit values that require monitoring at the workplace:	
67-63-0 propan-2-ol	
WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999mg/m <sup>3</sup> , 400 ppm

· **Additional information:** The lists valid during the making were used as basis.

### **8.2. Exposure controls:**

#### **Personal protective equipment:**

##### · **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Avoid alcohol consumption while working with the product.

##### · **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter AX

##### · **Protection of hands:**



#### *Protective gloves*

Solvent resistant gloves. Use gloves approved to BS EN 374 : Protective Gloves against Chemicals.

Chemical Resistant Gloves, class 4 or higher for prolonged exposure.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

##### · **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

##### · **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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### • Eye protection:



Tightly sealed goggles . Approved to EN166 Standard.

### • Body protection:

Protective work clothing

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

#### • General Information

#### • Appearance:

**Form:** Liquid

**Colour:** Colourless (Aged product may darken depending upon storage conditions and time period)

• **Odour:** Alcohol-like

• **pH-value:** neutral

#### • Change in condition

Melting point/Melting range: -89.5 °C

Boiling point/Boiling range: 82 °C

• **Flash point:** 13 °C

• **Ignition temperature:** 425 °C

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

#### • Explosion limits:

Lower: 2 Vol %

Upper: 12 Vol %

• **Vapour pressure at 20 °C:** 43 hPa

• **Density at 20 °C:** 0.785 g/cm<sup>3</sup>

• **Solubility in / Miscibility with water:** Fully miscible.

• **Viscosity: Dynamic at 20 °C:** 2.43 mPas

• **9.2 Other information** No further relevant information available.

## SECTION 10: STABILITY AND REACTIVITY

### • 10.1 Reactivity

### • 10.2 Chemical stability

### • Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications and industry good practice.

• **10.3 Possibility of hazardous reactions** No dangerous reactions known.

• **10.4 Conditions to avoid** No further relevant information available.

• **10.5 Incompatible materials:** No further relevant information available.

• **10.6 Hazardous decomposition products:** Carbon monoxide if incomplete combustion.

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## **SECTION 11: TOXOLOGICAL INFORMATION**

### **11.1. Information on toxicological effects:**

· Acute toxicity:

· LD/LC50 values relevant for classification:		
Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

#### · **Primary irritant effect:**

- on the skin: Prolonged contact may result in mild skin irritation.
- on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.

## **SECTION 12: ECOLOGICAL INFORMATION**

### · **12.1 Toxicity**

· **Aquatic toxicity:** No further relevant information available.

### · **12.2 Persistence and degradability**

No further relevant information available.

### · **12.3 Bioaccumulative potential**

No further relevant information available.

### · **12.4 Mobility in soil**

No further relevant information available.

#### · **Additional ecological information:**

#### · **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### · **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods:**

#### · **Recommendation**

Must not be disposed together with household refuse. Do not allow product to reach sewage system.

· European waste catalogue Refer to our office for EWC codes for disposal of used solvent.

#### · **Uncleaned packaging:**

#### · **Recommendation:**

Waste Solvent Disposal must be made according to official regulations. Refer to Hazardous Waste Regulations 2005.

Requires movement under Consignment note by licensed waste carrier.

Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning.

Containers to be scrapped as waste must be cleaned so that no hazardous substances remain, otherwise uncleaned containers containing residue for scrap will need to be consigned as hazardous waste as per WM2 version 3 2014.

· **Recommended cleansing agents:** Water, if necessary, together with cleansing agents.

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## SECTION 14: TRANSPORT INFORMATION

- **14.1 UN-Number**
- **ADR, IMDG, IATA UN1219**
- **14.2 UN proper shipping name**
- **ADR 1219 ISOPROPANOL (ISOPROPYL ALCOHOL)**
- **IMDG, IATA ISOPROPANOL (ISOPROPYL ALCOHOL)**
- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class 3 Flammable liquids.**
- **Label 3**
- **14.4 Packing group**
- **ADR, IMDG, IATA II**
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user**
- **Warning:** Flammable liquids.
- **Danger code (Kemler):** 33
- **EMS Number:** F-E,S-D
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
- **Not applicable.**
- **UN "Model Regulation":** UN1219, ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II

## SECTION 15: REGULATORY INFORMATION

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

### • **Relevant phrases**

The 'R' phrase listed below are for reference only and do not form the R phrases for the labelling or classification of the product. Refer to section 3 for this information.

### • **Training hints**

Make users aware of the contents of this document and train according to use and risks within your operation.

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### • Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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