

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: PROPAN-2-OL
CAS number: 67-63-0
EINECS number: 200-661-7
Index number: 603-117-00-0
Synonyms: ISOPROPANOL
ISOPROPYL ALCOHOL
IPA

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

Use of substance / mixture: Solvent.

1.3. Details of the supplier of the safety data sheet

Company name: Hexeal Chemicals Limited
21 Mackintosh Road
Rackheath Ind Est
Norwich
Norfolk
NR13 6LJ
United Kingdom
Tel: 01603 604200
Fax: 01603 604201
Email: info@hexchem.co.uk

1.4. Emergency telephone number

Emergency tel: 01603 604200

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336

Classification under CHIP: F: R11; Xi: R36; -: R67

Most important adverse effects: Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

2.2. Label elements

Label elements under CLP:

Hazard statements: H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

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Signal words: Danger

Hazard pictograms: GHS02: Flame

GHS07: Exclamation mark



Precautionary statements: P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER or doctor if you feel unwell.
P240: Ground/Bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P337+313: If eye irritation persists: Get medical advice/attention.
P370+378: In case of fire: Use for extinction.
P403+233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P501: Dispose of contents/container to.

2.3. Other hazards

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: PROPAN-2-OL

CAS number: 67-63-0

EINECS number: 200-661-7

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.

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Eye contact: Bathe the eye with running water for 15 minutes. Remove any contact lenses and open eyes wide apart.

Ingestion: Do not induce vomiting. Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. Consult a doctor.

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. There may be pain and redness.

Ingestion: Nausea and stomach pain may occur. There may be vomiting. The casualty may appear intoxicated. High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in severe over-exposure).

Inhalation: There may be numbness or tingling in the limbs. Drowsiness or mental confusion may occur. Nausea and stomach pain may occur. May cause irritation of the mucous membranes and respiratory system. Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and serious cases, loss of concentration.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. Delayed effects can be expected after long-term exposure. Drowsiness or mental confusion may occur. The casualty may appear intoxicated.

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

Immediate / special treatment: Show this safety data sheet to the doctor in attendance. First Aid may be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, Get Medical Attention Promptly!

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Carbon dioxide. Alcohol resistant foam. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used. Do not use high volume water jet.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Vapour may travel considerable distance to source of ignition and flash back. Forms explosive air-vapour mixture. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

Section 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Eliminate all sources of ignition. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Inform the relevant authorities if the product has caused environmental pollution. (sewers, waterways, soil or air)

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb with inert, damp, non combustible material. Absorb into dry earth or sand. Do not contaminate water sources or sewer. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Refer to section 13 of SDS for suitable method of disposal.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Earth any equipment used in handling. Smoking is forbidden. Use non-sparking tools. Avoid direct contact with the substance. Wear suitable protective clothing. Keep away from heat and sources of ignition. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Keep away from direct sunlight. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition. The floor of the storage room must be impermeable to prevent the escape of liquids. Store between 15°C and 28°C.

Suitable packaging: Must only be kept in original packaging. Store material in closed containers.

7.3. Specific end use(s)

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition. The floor of the storage room must be impermeable to prevent the escape of liquids. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Respiratory protection: wear suitable respiratory protection when aerosols or mist are present. If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. Gas/vapour filter, type A: organic vapours (EN141).

Hand protection: Butyl gloves. Nitrile gloves. Sufficient protection is given wearing suitable protective gloves checked according to i.e EN 374, in the event of risk of skin contact with the product. Replace gloves immediately if damaged.

Eye protection: Safety goggles.

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

Environmental: The floor of the storage room must be impermeable to prevent the escape of liquids. Ensure all engineering measures mentioned in section 7 of SDS are in place. Prevent from entering in public sewers or the immediate environment.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Alcoholic

Evaporation rate: 1.2

Solubility in water: Miscible

Viscosity: 2.65 cSt 20c

Boiling point/range°C: 82

Melting point/range°C: -89

Flammability limits %: lower: 2.0

upper: 12.7

Flash point°C: 12

Part.coeff. n-octanol/water: log Pow: 0.05

Autoflammability°C: 425

Vapour pressure: 33mm Hg 20

Relative density: 0.786 20

pH: 7

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions. Reaction with acid chlorides, chlorine and phosphorus chlorides forms toxic chloroacetones. Water loss occurs over alumina sulphuric acid to form diisopropyl ether and propylene which are both flammable.

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10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Heat. Sources of ignition. Flames. Hot surfaces.

10.5. Incompatible materials

Materials to avoid: Acids. Halogenated compounds. Oxidising agents. Acid anhydrides. Aluminium.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
IVN	RAT	LD50	1088	mg/kg
ORL	MUS	LD50	3600	mg/kg
ORL	RAT	LD50	5045	mg/kg
SCU	MUS	LDLO	6	gm/kg

Relevant hazards for substance:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Based on test data
STOT-single exposure	-	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. There may be pain and redness.

Ingestion: Nausea and stomach pain may occur. There may be vomiting. The casualty may appear intoxicated. High doses may cause CNS depression (fatigue, dizziness and possibly loss of concentration, with collapse, coma and death in severe over-exposure).

Inhalation: There may be numbness or tingling in the limbs. Drowsiness or mental confusion may occur. Nausea and stomach pain may occur. May cause irritation of the mucous membranes and respiratory system. Exposure in high concentrations can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion and serious cases, loss of concentration.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. Delayed effects can be

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expected after long-term exposure. Drowsiness or mental confusion may occur. The casualty may appear intoxicated.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	9640	mg/l
DAPHNIA	24H EC50	1800	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

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/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

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: UN1219

14.2. UN proper shipping name

Shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)

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14.3. Transport hazard class(es)

Transport class: 3

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Tunnel code: D/E

Transport category: 2

Section 15: Regulatory information

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

Specific regulations: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Regulation, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency. Amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC & 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, Labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending - Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: Please provide adequate information, instructions and training for operations.

Phrases used in s.2 and s.3: H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

R11: Highly flammable.

R36: Irritating to eyes.

R67: Vapours may cause drowsiness and dizziness.

Legend to abbreviations: PNEC = predicted no effect level

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DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular/corneal

PCP = physico-chemical properties

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.