

SAFETY DATA SHEET

PROPAN-2-OL

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

PRODUCT NAME: PROPAN-2-OL
PART No.: SOL012, ZSO050
SUPPLIER: CGP Chemicals Ltd
The Old Dairy
Newton Solney
Burton-on-Trent DE15 0TQ
Tel: 01283 511101
Fax: 01283 511102

2. COMPOSITION/INFORMATION ON INGREDIENTS

EU INDEX No.: 603-003-00-0
EEC (EINECS) No. 200-661-7
GROSS FORMULA: C3-H8-O
CAS No.: 67-63-0

3. HAZARDS IDENTIFICATION

Highly flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness.

4. FIRST AID MEASURES

INHALATION: Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! If medical attention is not immediately available, Try to induce vomiting by having affected person touch back of the throat with his finger or by giving him syrup of ipecac as directed on the package. Get medical attention immediately!

SKIN: Remove affected person from source of contamination. Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water. Get medical attention if irritation persists after washing.

EYES: Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Alcohol resistant foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc.

SPECIAL FIRE FIGHTING PROCEDURES:

If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to reduce vapours. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. If risk of water pollution occurs, notify appropriate authorities.

UNUSUAL FIRE & EXPLOSION HAZARDS:

May explode in a fire. May develop highly toxic or corrosive fumes if heated. May form explosive or toxic mixtures with air. May explode when heated or when exposed to flames or sparks. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP METHODS:

Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in safe place (fume hood). Allow sufficient time for vapours to completely clear the hood ducts, then burn the paper in a location away from combustible materials. Let evaporate. Keep out of confined spaces because of explosion risk. Provide ventilation and confine spill. Do not allow runoff to sewer. Clean-up personnel should use respiratory and/or liquid contact protection.

7. HANDLING AND STORAGE

USAGE PRECAUTIONS:

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Avoid acids, moisture, and combustible materials. Read and follow manufacturer's recommendations. Wear full protective clothing for prolonged exposure and/or high concentrations.

STORAGE PRECAUTIONS:

Flammable/combustible - Keep away from oxidizers, heat and flames. May attack some plastics, rubber and coatings. Keep in cool, dry, ventilated storage and closed containers.

STORAGE CRITERIA:

Flammable liquid storage.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT NAME:

PROPAN-2-OL

CAS No.:

67-63-0

STD

OES

LT EXP 8 Hrs

400 ppm

ST EXP 15 Min

500 ppm

VENTILATION:

Provide adequate general and local exhaust ventilation. Work in fume cupboard.

RESPIRATORS:

CCROVF, CCR with organic vapour respirator and full facepiece.

PROTECTIVE GLOVES:

Use protective gloves made of: Neoprene. Nitrile.

EYE PROTECTION:

Wear splash-proof eye goggles to prevent any possibility of eye contact.

OTHER PROTECTION:

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash, quick drench. Wear appropriate clothing to prevent any possibility of skin contact. Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENIC WORK PRACTICES:

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet. Promptly remove any clothing that becomes wet or contaminated. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous

properties.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid.		
COLOUR:	Colourless.		
ODOUR/TASTE:	Rubbing alcohol.		
MOL. WEIGHT:	60.11		
BOILING POINT (°C, interval):	~ 82	Pressure:	
MELT/FREEZ. POINT (°C, interval):	~ -88		
DENSITY/SPECIFIC GRAVITY (g/ml):	0.79	Temperature (°C):	20
VAPOUR DENSITY (air=1):	2.7		
VAPOUR PRESSURE:	33.00	Temperature (°C):	
EVAPORATION RATE:	2.83	Reference:	
SOLUBILITY DESCRIPTION:	Miscible with water. Miscible with: Alcohol. Ether.		
ODOUR THRESHOLD, LOWER:	100.00 ppm		
ODOUR THRESHOLD, UPPER:	ppm		
FLASH POINT (°C):	~ 11	Method:	CC (Closed cup).
AUTO IGNITION TEMP. (°C):	398		
FLAMMABILITY LIMIT - LOWER(%):	2.50		
FLAMMABILITY LIMIT - UPPER(%):	12.70		

10. STABILITY AND REACTIVITY

STABILITY:	Avoid: Heat, sparks, flames. Moisture.
MATERIALS TO AVOID:	ALUMINIUM, CROTONALDEHYDE, OLEUM, CARBONYL CHLORIDE, POTASSIUM-tert-BUTOXIDE Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

TOXIC DOSE - LD 50:	5840 mg/kg (oral rat)
HEALTH WARNINGS:	Exposure; This chemical has good warning properties. Gas or vapour is harmful on prolonged exposure or in high concentration. Irritant of eyes and mucous membranes. Toxic through skin absorption (percutaneous). Narcotic effect. CNS depressant. May cause chemical eye burns. Swallowing concentrated chemical may cause severe internal injury. Unconsciousness, death.
OTHER HEALTH EFFECTS:	Consolidated carcinogen list.
ROUTE OF ENTRY:	Inhalation. Ingestion. Skin and/or eye contact.
TARGET ORGANS:	Central nervous system. Eyes. Respiratory system, lungs. Skin.
MEDICAL SYMPTOMS:	Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. May cause suffocation. Skin irritation. Nausea, vomiting. Unconsciousness, possibly death. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Behavioral changes. Hypotension (low blood pressure). Dizziness.

MEDICAL CONSIDERATIONS: Convulsive disorders, CNS problems.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: Incinerate in suitable combustion chamber. Absorb in vermiculite or dry sand, dispose in licensed special waste. Collect on absorbent material, place in cardboard kegs and incinerate. Confirm disposal procedures with environmental engineer and local regulations.

14. TRANSPORT INFORMATION

LABEL FOR CONVEYANCE:



UN No. ROAD:	1219
ADR CLASS No.:	3
ADR CLASS:	Class 3: Flammable liquids.
ADR PACK GR.	II
HAZARD No. (ADR):	33 Highly flammable liquid (flash-point below 23°C).
ADR LABEL No.:	3
HAZCHEM CODE:	2sE
CEFIC TEC(R) No.:	30GF1-II
RID CLASS No.:	3
RID PACK GR.	II
IMDG CLASS:	3
IMDG PAGE No.:	3100
IMDG PACK GR.:	II
EmS No.:	3-06
MFAG TABLE No.:	305
MARINE POLLUTANT:	No.
ICAO CLASS:	3
AIR PACK GR.:	II

15. REGULATORY INFORMATION

LABEL FOR SUPPLY:



RISK PHRASES:

R-11 Highly flammable.
R-36 Irritating to eyes.
R-67 Vapours may cause drowsiness and dizziness.

SAFETY PHRASES:

S-2 Keep out of the reach of children.
S-7 Keep container tightly closed.
S-16 Keep away from sources of ignition - No Smoking.
S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-24/25 Avoid contact with skin and eyes.

UK REGULATORY REFERENCES:

Classification, Packaging and Labelling Regulations 1984. Highly Flammable Liquid Regulations 1972. Health and Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations 1988.

16. OTHER INFORMATION

INFORMATION SOURCES:

Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984. OSHA Air Contaminants - Permissible Exposure Limits (Title 29). Hazardous Materials, Emergency Response Guidebook, DOT-P 5800.3, 1984. NIOSH/OSHA Pocket Guide to Chemical Hazards, 1978. Chemical Hazards of the Workplace, Proctor & Hughes, Lippincott, 1978 Threshold Limit Values and Biological Exposure Indices for 1985-86. Chemical Safety Data Guide. Bureau of National Affairs, 1985.

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