



Safety Data Sheet

Date of Issue: 24.06.2020

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1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name: ECP Limited
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Product	Propan-2-ol	Code	4422	
CAS#	HSNO#	UN #	DG Class/es	Packing group #
67-63-0	HSR001180	1219	3	II

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

Flammable Liquids (Category B) H225
Skin irritation (Category B) H316
Eye irritation (Category A) H319

2.2 GHS Label elements, including precautionary statements

Hazard Pictogram



Signal word : Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.
H316 Causes mild skin irritation.
H319 Causes serious eye irritation.

Precautionary statement(s)

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
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.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

3. Composition/information on ingredients

Substance / Mixture : Substance

3.1 Substances

Synonyms : sec-Propyl alcohol , Isopropyl alcohol , Isopropanol

Formula : C3H8O

Molecular weight : 60.10 g/mol

CAS-No. : 67-63-0

EC-No. : 200-661-7

Index-No. : 603-117-00-0

Component	Classification	Concentration
Propan-2-ol (Isopropyl alcohol or isopropanol)		
	3.1 B; 6.1 E; 6.4 A; 6.9 B; H225, H333, H319, H336 Concentration limits: >= 20 %: STOT SE 3, H336;	100%

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. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting measures

5.1 Suitable Extinguishing Media

Extinguish fire with foam, dry chemical powder or carbon dioxide.

5.2 Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

5.3 Specific Hazards

Highly flammable liquid and vapour. Vapour/air mixtures may ignite explosively. Flashback along the vapour trail may occur. Runoff to sewer may create fire or explosion hazard.

5.4 Hazchem Code

•2YE

5.5 Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. 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.

For personal protection see section 8.

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 section

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.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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.

Handle and store under inert gas. Hygroscopic

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control parameters	Basis
2-Propanol	67-63-0	WES-TWA	400 ppm 983 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
		WES-STEL	500 ppm 1,230 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

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

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. 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 particle respirator type or 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.

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	
Form:	liquid
Colour:	colourless
b) Odour	alcohol-like
c) Odour Threshold	No data available
d) pH	at 20 °C neutral
e) Melting point/freezing point	Melting point/range: -89.5 °C
f) Initial boiling point and boiling range	82 °C
g) Flash point	12.0 °C - closed cup
h) Evaporation rate	3.0
i) Flammability (solid,gas)	No data available
j) Upper/lower flammability or explosive limits	
Upper explosion limit:	13.4 %(V)
Lower explosion limit:	2 %(V)
k) Vapour pressure	43 hPa at 20 °C
l) Vapour density	2.07
m) Relative density	0.785 g/mL at 25 °C
n) Water solubility	soluble
o) Partition coefficient:	n-octanol/water

log Pow:	0.05 - Bioaccumulation is not expected.
p) Auto-ignition temperature	425.0 °C
q) Decomposition temperature	Distillable in an undecomposed state at normal pressure.
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

Minimum ignition energy	0.65 mJ
Conductivity	< 0.1 µS/cm
Surface tension	20.8 mN/m at 25.0 °C
Relative vapour density	2.07

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Reacts with air to form peroxides.

Stable under recommended storage conditions.

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

Strong oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 5,840 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 37.5 mg/l

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - 12,800 mg/kg

Remarks: (RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h
(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation
(OECD Test Guideline 405)
(Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitisation

Buehler Test - Guinea pig

Result: negative
(OECD Test Guideline 406)

Germ cell mutagenicity

Ames test

Salmonella typhimurium

Result: negative

In vitro mammalian cell gene mutation test

Chinese hamster ovary cells

Result: negative

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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

Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute inhalation toxicity - Central nervous system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: NT8050000

Central nervous system depression, prolonged or repeated exposure can cause:, Nausea, Headache, Vomiting, narcosis, Drowsiness, Overexposure may cause mild, reversible liver effects., Aspiration may lead to:, Lung oedema, Pneumonia

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Headache, Dizziness, inebriation, Unconsciousness, narcosis

After uptake of large quantities:

Coma

Handle in accordance with good industrial hygiene and safety practice.

Kidney - Irregularities - Based on Human Evidence

12. Ecological information

12.1 Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 9,640 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 13,299 mg/l - 48 h

Remarks: (IUCLID)

Toxicity to algae

IC50 - Desmodesmus subspicatus (green algae) - > 1,000 mg/l – 72 h

Remarks: (IUCLID)

Toxicity to bacteria

EC5 - Pseudomonas putida - 1,050 mg/l - 16 h

Remarks: (Lit.)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 5 d
Result: 53 % - Readily biodegradable.
(Directive 67/548/EEC, Annex V, C.6)

Theoretical oxygen demand 2,400 mg/g
Remarks: (Lit.)

Ratio BOD/ThBOD 49 %
Remarks: (IUCLID)

12.3 Bioaccumulative potential

No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not
Conducted

12.6 Other adverse effects

No data available

13. Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1219	1219	1219
14.2	UN Proper Shipping name	ISOPROPANOL	ISOPROPANOL	ISOPROPANOL
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	II	II	
14.5	Environmental Hazards	no	no	no
14.6	Special precautions for user	none		
14.7	Incompatible materials	Strong oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids		

15. Regulatory information

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

National regulatory information

HSNO Approval Code: HSR001180

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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