



Safety Data Sheet

Date of Issue: 01.10.2020

Date of Expiry: 01.10.2025

1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Distributor Name : **ECP Limited**
Address : PO Box 34125, Birkenhead, Auckland 0746
Telephone : +64 9 480 4386
Facsimile : +64 9 480 4385
Emergency phone number : 0800 243 622 (24 hours)

Manufacturer Name : **Avantor Performance Materials, LLC**
Address : 100 Matsonford Rd, Suite 200 , Radnor, PA 19087

Product	PROPAN-2-OL			Code	9084-03
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

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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

Occupational Exposure Limits Table

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

Appearance

Physical state	: Liquid
Form	: Liquid
Colour	: Colourless
Odour	: Alcohol
Odour threshold	: No data available.
pH	: No data available.
Melting point/freezing point	: -88.5 °C
Initial boiling point and boiling range	: 82.3 - 82.5 °C
Flash Point	: 12 °C (Closed Cup)
Evaporation rate	: 21 (ether=1) 2.9 (n-butyl acetate=1)
Flammability (solid, gas)	: Class IB Flammable Liquid
<i>Upper/lower limit on flammability or explosive limits</i>	
Flammability limit - upper (%)	: 12 %(V)

Flammability limit - lower (%)	: 2.5 %(V)
Explosive limit - upper (%)	: No data available.
Explosive limit - lower (%)	: No data available.
Vapor pressure	: 6.053 kPa (25 °C) 44 hPa (20 °C)
Vapor density	: 2.1 (Air=1)
Density	: 0.79 g/ml (20 °C)
Relative density	: 0.79 (20 °C)
<i>Solubility(ies)</i>	
Solubility in water	: Miscible
Solubility (other): benzene	: Soluble
Chloroform	: Miscible
Partition coefficient (n-octanol/water)	: 0.05
Auto-ignition temperature	: 399 °C
Decomposition temperature	: No data available.
Viscosity	: 2.4 mm ² /s (20 °C)

Other information

Liquid conductivity	: 35 µS/cm (25 °C)
Minimum ignition energy	: 0.65 mJ
Molecular weight	: 60.10 g/mol

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 likely routes of exposure

Inhalation : May cause irritation to the mucous membranes and upper respiratory tract.
May cause central nervous system effects.

Skin Contact : Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Eye contact : Causes serious eye irritation.

Ingestion : Irritating. May cause nausea, stomach pain and vomiting.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product : LD 50 (Rat): 5,045 - 5,840 mg/kg

Dermal Product : LD 50 (Rabbit) 12,800 mg/kg

Inhalation Product: LC 50 (Rat, 6 h) > 10000 ppm , LOAEL (Rat, 6 h): 5000 ppm

Repeated dose toxicity

No data available.

Skin Corrosion/Irritation

Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Serious Eye Damage/Eye Irritation

Causes serious eye irritation.

Respiratory or Skin Sensitization

Not a skin nor a respiratory sensitizer.

Carcinogenicity

This substance has no evidence of carcinogenic properties.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro Product: No mutagenic components identified

In vivo Product: No mutagenic components identified

Reproductive toxicity

No components toxic to reproduction

Specific Target Organ Toxicity - Single Exposure

Central nervous system. - Narcotic effect.

Specific Target Organ Toxicity - Repeated Exposure

None known.

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

May be harmful if swallowed and enters airways.

Other effects: None known

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	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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