

Jotun Thinner No. 4

Section 1. Identification

Product name : Jotun Thinner No. 4

Product code : 560

Chemical name : Propan-2-ol

Other means of : isopropanol; 2-Propanol

identification

Product description : Solvent.
Product type : Liquid.

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

Identified uses

Use in coatings - Industrial use
Use in coatings - Professional use

Supplier : Jotun Australia Pty. Ltd. Proline Protective Coatings 59 Calarco Drive, 176 Ossie James Drive,

Derrimut, VIC 3026,
Australia
Hamilton Airport,
Hamilton 3282
New Zealand

Phone: + 61 39314 0722

E-mail: SDSJotun@jotun.com Email: info@prolinepc.nz Contact: +(64) 0508568867

Emergency telephone number (with hours of operation) : Medical Emergencies 24 hours:

Poisons Information Centre (New Zealand) 0800 764

766

e-mail address of person responsible for this SDS : sdsjotun@jotun.com

Section 2. Hazards identification

HSNO Classification : FLAMMABLE LIQUIDS - Category 2

EYE IRRITATION - Category 2

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) -

Category 3

This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

GHS label elements

Signal word : Danger.

Hazard statements : H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Precautionary statements

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Section 2. Hazards identification

Prevention : P280 - Wear eye or face protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P261 - Avoid breathing vapour.

Response : P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.

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

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Symbol





Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture : Substance **Chemical name** : Propan-2-ol

Other means of identification

: isopropanol; 2-Propanol

CAS number/other identifiers

CAS number : 67-63-0 **EC** number : 200-661-7

Ingredient name	% (w/w)	CAS number
Propan-2-ol	100	67-63-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get

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Section 4. First aid measures

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur. Wash clothing before reuse.

Clean shoes thoroughly before reuse.

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10

minutes. Get medical attention.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation : May cause drowsiness or dizziness.

Ingestion : No known significant effects or critical hazards.Skin contact : No known significant effects or critical hazards.

Eye contact : Causes serious eye irritation.

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness No specific data

Ingestion: No specific data.Skin: No specific data.

Eyes : Adverse symptoms may include the following:

pain or irritation watering

redness

Indication of immediate medical attention and special treatment needed, if necessary

Specific treatments: No specific treatment.

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it

is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable : Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable : Do not use water jet.

Specific hazards arising from the chemical

: Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas

or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide

Hazchem code : •2YE

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Section 5. Firefighting measures

Special precautions for firefighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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Section 7. Handling and storage

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and wellventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Propan-2-ol	HSWA 2015 - HSW (GRWM) 2016. Workplace exposure standards (WES) (New Zealand, 4/2022). WES-TWA: 400 ppm 8 hours. WES-TWA: 983 mg/m³ 8 hours. WES-STEL: 1230 mg/m³ 15 minutes. WES-STEL: 500 ppm 15 minutes.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection **Hand protection**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): 4H/Silver Shield® (> 0.07 mm) butyl rubber (> 0.4 mm) nitrile rubber (> 0.75 mm) Viton® (> 0.7 mm) 4 - 8 hours (breakthrough time): neoprene (> 0.35 mm) Teflon (> 0.35 mm) < 1 hour (breakthrough time): natural rubber (latex) (> 0.35 mm) polyvinyl alcohol (PVA) (> 0.3 mm) PVC (> 0.5 mm)

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Section 8. Exposure controls/personal protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to ISO 374-1:2016.

For prolonged or repeated handling, use the following type of gloves:

Recommended, gloves(breakthrough time) > 8 hours: 4H/Silver Shield® (> 0.07 mm) butyl rubber (> 0.4 mm) nitrile rubber (> 0.75 mm) Viton® (> 0.7 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: neoprene (> 0.35 mm) Teflon

(> 0.35 mm)

Not recommended, gloves(breakthrough time) < 1 hour: natural rubber (latex) (>

0.35 mm) polyvinyl alcohol (PVA) (> 0.3 mm) PVC (> 0.5 mm)

Personal protective equipment for the body should be selected based on the task **Body protection**

being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static

discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

If workers are exposed to concentrations above the exposure limit, they must use a **Respiratory protection** respirator according to EN 140. Use respiratory mask with charcoal and dust filter

when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use

of roller or brush, consider use of charcoalfilter.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid. [COLORLESS LIQUID WITH THE ODOR OF RUBBING ALCOHOL]

Colour : Clear.

Odour : Characteristic. **Odour threshold** Not available. : Not applicable. **Melting point/freezing point** : -90°C (-130°F) **Boiling point, initial boiling** : 82°C (179.6°F)

point, and boiling range

: Closed cup: 12°C (53.6°F) Flash point

Open cup: 11.85°C (53.3°F)

Evaporation rate : 1.7 compared with butyl acetate

: Not available. **Flammability** Lower and upper explosion : 2 - 12%

limit/flammability limit

: 4.1 kPa (30.8 mm Hg) (at 20°C) Vapour pressure

Relative vapour density : 2.07 (Air = 1)

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Section 9. Physical and chemical properties and safety characteristics

Relative density : 0.78

Density : 0.78 g/cm³

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Miscible with water : Yes.

Partition coefficient: n-

octanol/water

: The product is more soluble in water; log(octanol/water) =0.05

Auto-ignition temperature : 425°C (797°F) **Decomposition temperature** : Not available.

Viscosity : Kinematic (room temperature): 2.43 mm²/s (2.43 cSt)

Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)

Flow time (ISO 2431) : Not available.

Molecular weight : 60.11 g/mole

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Chemical stability : The product is stable.

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not

allow vapour to accumulate in low or confined areas.

Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions:

oxidising agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

Section 11. Toxicological information

Information on likely routes of exposure

Inhalation : May cause drowsiness or dizziness.

Ingestion : No known significant effects or critical hazards.Skin contact : No known significant effects or critical hazards.

Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Ingestion: No specific data.Skin contact: No specific data.

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

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Section 11. Toxicological information

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Propan-2-ol	LD50 Dermal LD50 Oral		12800 mg/kg 5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Propan-2-ol	Eyes - Moderate irritant	Rabbit		24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitisation

Not available.

Potential chronic health effects

General : No known significant effects or critical hazards. Inhalation : No known significant effects or critical hazards. Ingestion : No known significant effects or critical hazards. : No known significant effects or critical hazards. **Skin contact Eye contact** : No known significant effects or critical hazards. Carcinogenicity : No known significant effects or critical hazards. Mutagenicity : No known significant effects or critical hazards. **Teratogenicity** : No known significant effects or critical hazards. **Developmental effects** : No known significant effects or critical hazards. **Fertility effects** : No known significant effects or critical hazards.

Chronic toxicity

Not available.

Carcinogenicity

Not available.

Mutagenicity

Not available.

Teratogenicity

Not available.

Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name		Route of exposure	Target organs
Propan-2-ol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Numerical measures of toxicity

Acute toxicity estimates

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Section 11. Toxicological information

- Carlotte	(3	(mg/kg)	Inhalation (gases) (ppm)	(vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Propan-2-ol	5000	12800	N/A	N/A	N/A

Section 12. Ecological information

Ecotoxicity

: This product shows a low bioaccumulation potential.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
•	Acute EC50 10100 mg/l Fresh water Acute LC50 4200 mg/l Fresh water	, , , ,	48 hours 96 hours

Persistence/degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Propan-2-ol	0.05	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

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Section 14. Transport information

	New Zealand	IMDG	IATA
UN number	UN1219	UN1219	UN1219
UN proper shipping name	Isopropanol (Isopropyl alcohol)	Isopropanol (Isopropyl alcohol)	Isopropanol (Isopropyl alcohol)
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.

Additional information

New Zealand : Hazchem code •2YE

IMDG : Emergency schedules F-E, S-D ADR/RID Tunnel restriction code: (D/E) Hazard identification number: 33

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available.

to IMO instruments

Section 15. Regulatory information

HSNO Group Standard

: HSR002650 Solvents (Flammable) Group Standard 2020

HSNO Classification

: FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) -

Category 3

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

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Section 16. Other information

History

Date of printing : 23.10.2023 Date of issue/Date of : 23.10.2023

revision

Date of previous issue : 15.06.2023

Version : 1.04

Key to abbreviations : ADG = Australian Dangerous Goods

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

SGG = Segregation Group UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.