Infosafe No™	3CHBK	Issue Date : June 2020	RE-ISSUED by CHEMSUPP

Product Name : **DI-ISO-PROPYL ETHER**

Classified as hazardous

1. Identification

GHS Product Identifier	DI-ISO-PROPYL ETHER
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
Recommended use of the chemical and restrictions on use	Specialized solvent to remove or extract polar organic compounds from aqueous solutions, laboratory reagent.

Other Names

Name	Product Code
DI-ISO-PROPYL ETHER AR	DA181
Iso-propyl ether, 2-Isopropoxypropane	

Other Information

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Flammable Liquids: Category 2 Specific Targart Organ Toxicity - Single Exposure Category 3
Signal Word (s)	DANGER
Hazard Statement (s)	H225 Highly flammable liquid and vapour. H336 May cause drowsiness or dizziness. AUH019 May form explosive peroxides AUH066 Repeated exposure may cause skin dryness or cracking
Pictogram (s)	Flame, Exclamation mark

Precautionary statement – 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. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statement – Response	P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P370+P378 In case of fire: Use foam, dry chemical, CO2 or water spray for extinction.

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Precautionary statement – Storage	P403+P233+235 Store in a well-ventilated place. Keep container tightly closed. Keep cool. P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Chemical Characterization Liquid

Ingredients

Name	CAS	Proportion	Hazard Symbol	Risk Phrase
DI-ISO-PROPYL ETHER	108-20-3	99-100 %		

Other Information Stabilized with BHT.

4. First-aid measures

Inhalation	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
Ingestion	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist. If vomiting occurs, keep head below hips to prevent aspiration into lungs.
Skin	Wash affected areas with copious quantities of water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention if irritation, pain, swelling, lacrimation, or photophobia persists.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
Other Information	For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

5. Fire-fighting measures

Hazards from Combustion Products	Oxides of carbon.
Specific Methods	Caution: Use of water spray when fighting fire may be inefficient. Small fire: Use foam, dry chemical, CO2 or water spray. Large fire: Use foam, fog or water spray - Do NOT use water jets. If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside the containers.
Specific hazards arising from the chemical	HIGHLY FLAMMABLE: This product has a low flash point. Will be easily ignited by heat, sparks or flames. Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks). Many liquids are lighter than water. Containers may explode on heating. Fire will produce irritating, poisonous or corrosive gases. Vapours from run-off may create an explosion hazard.
Hazchem Code	3YE
Precautions in connection with Fire	Wear SCBA and fully encapsulating, gas-tight suit when handling these substances. Structural firefighter's uniform is NOT effective for these materials.

6. Accidental release measures

Spills & Disposal	Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 50m. All equipment used when handling the product must be earthed. Do NOT touch or walk through spilled material. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas. Vapour-suppressing foam may be used to control vapours. Water spray may be used to knock down or divert vapour clouds. Absorb with earth, sand or other non-combustible material. Use clean, non-sparking tool to collect absorbed material and place it into loosely-covered metal or plastic containers for later disposal. SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Precautions	Remove ignition sources Evacuate the area of all non-essential personnel. Avoid inhalation, contact with skin, eyes and clothing.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled

	drum or overdrum.
Environmental Precautions	Prevent from entering into drains, ditches, rivers or the sea.

7. Handling and storage

Precautions for Safe Handling	Take precautionary measures against static discharges. All electrical equipment must be flameproofed. Avoid prolonged or repeated contact with skin, eyes and clothing . Do not breath fumes which may accumulate in the vapour head-space of containers. Wear suitable protective clothing. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.
Conditions for safe storage, including any incompatabilities	Store in cool place and out of direct sunlight. Store in well ventilated area. Store away from sources of heat or ignition. Keep containers closed at all times.
Storage Regulations	Refer Australian Standard AS 1940-2017 'The storage and handling of flammable and combustible liquids'.
Unsuitable Materials	Various plastics, rubber.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
DI-ISO-PROPYL ETHER	1300	310	1040	250	

Other Exposure Information	These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. A time weighted average (TWA) has been established for Di-iso-propyl ether (Safe Work Australia) of 1040 mg/m3, (250 ppm). The corresponding STEL level is 1300 mg/m3,(310 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Appropriate engineering controls	Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Wear suitable protective clothing to prevent skin contact. Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other

protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Liquid
Appearance	Clear, colourless liquid.
Odour	Ether-like.
Melting Point	-86 °C
Boiling Point	68 °C
Solubility in Water	9 g/l
Vapour Pressure	119 mm Hg (20 °C)
Vapour Density (Air=1)	1.42 @ 20°C
Partition Coefficient: n-octanol/water	log Pow = 1.52
Density	0.73 g/cc
Flash Point	-28 °C
Flammability	HIGHLY FLAMMABLE.
Auto-Ignition Temperature	405 °C
Flammable Limits - Lower	1 vol%
Flammable Limits - Upper	21 vol%
Molecular Weight	102.18
Dynamic Viscosity	0.379 mPas

10. Stability and reactivity

Chemical Stability	Stable. May form explosive peroxides. Light sensitive.
Conditions to Avoid	Light. Heat, flames, ignition sources and incompatibles.
Incompatible Materials	Strong oxidising agents, amines, aldehydes and acids.
Hazardous Decomposition Products	Oxides of carbon.
Possibility of hazardous reactions	Contact with strong oxidising agents increases the risk of fire and explosion.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 4700 mg/kg.
Acute Toxicity - Dermal	LD50 (rabbit): 20000 mg/kg.
Ingestion	Absorption of large quantities my cause the following symptoms: weakness, pain, burning sensations in the chest and stomach, abdominal pain, headache, dizziness, nausea.
Skin	May cause skin irritation. Symptoms include redness and pain.
Eye	Vapours are irritating to eyes. Contact with liquid may cause severe pain and irritation.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not classified based on available information.

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Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Specific Targart Organ Toxicity - Single Exposure Category 3 H336 May cause drowsiness or dizziness.
STOT-repeated exposure	Not classified based on available information.
Chronic Effects	Drying and cracking of the skin may result from repeated or prolonged exposure.
Mutagenicity	Not classified based on available information.

12. Ecological information

Ecotoxicity	Not hazardous to the environment or that are not degradable in waste water treatment plants.
Persistence and degradability	Readily biodegradable.
Mobility	Contains volatile organic compounds which will evaporate easily from all surfaces.
Bioaccumulative Potential	Distribution: log P(o/w): 1.52. Bioaccumulation is not expected.
Other Information	Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and disposed of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the following: Class 1, Class 2.1, if both the Class 3 and Class 2.1 dangerous goods are in bulk, Class 2.3, Class 4.2, Class 5, Class 6, if the Class 3 dangerous goods are nitromethane, Class 7.
U.N. Number	1159
UN proper shipping name	DIISOPROPYL ETHER
Transport hazard class(es)	3
Hazchem Code	3YE
Packaging Method	3.8.3RT1
Packing Group	II
EPG Number	3A1
IERG Number	14

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Chemical Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'.

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	Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
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