



Safety Data Sheet

Date of Issue: 25.09.2020

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1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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

Supplier Name : **CHEM-SUPPLY PTY LTD** (ABN 19 008 264 211)
Address : 38 - 50 Bedford Street, GILLMAN SA 5013 Australia

Product	Dimethyl Sulfoxide	Code	DA013
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Recommended use : Laboratory Investigations

2: Hazards identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Australia:

Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

Not classified as Dangerous Goods for transport or storage, according to the New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land.

HSNO Classification:

3.1D - Flammable liquids: low hazard

6.3B - Substance that is mildly irritating to the skin

6.4A - Substance that is irritating to the eyes

9.3B - Substance that is ecotoxic to terrestrial vertebrates

3: Composition/information on ingredients

<u>Ingredients</u>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Dimethylsulphoxide	67-68-5	99.7-100 %
	Other impurities	N/A	0-0.3 %

4: First aid measures

Inhalation	Remove victim to fresh air. Keep warm and at rest. If rapid recovery does not occur, obtain medical attention
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.
Skin	Wash affected areas with copious quantities of water. Remove contaminated clothing and wash before re-use. If persistent irritation occurs, obtain medical attention.
Eye	If in eyes, immediately hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed off completely. Seek immediate medical attention.
First Aid Facilities	Eye wash station and normal washroom facilities.
Advice to Doctor	Treat symptomatically.
Other Information	For advice in an emergency, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor at once.

5: Firefighting measures

Suitable Extinguishing Media	Foam, dry chemical powder, carbon dioxide, water fog or water spray.
Hazards from Combustion Products	Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of sulphur.
Specific Hazards	Combustible liquid. This product will burn if exposed to fire. Possibility of explosive reactions with organic and inorganic chlorides, bromides (sulphur, phosphorus, methyl) potassium or sodium hydride. Under fire conditions this product may be violently or explosively reactive.
Decomposition Temp.	>190°C
Precautions in connection with Fire	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) and full protective clothing to prevent exposure to vapours, fumes, or products of combustion. Water spray may be used to cool down heat-exposed containers.

6: Accidental release measures

Personal - Avoid inhalation, contact with skin, eyes, and clothing. Remove ignition sources.

Precautions Personal Protection - Wear protective clothing specified for normal operations.

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 over drum.

7: Handling and storage

Precautions for Safe Handling Do not breathe vapour. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure

Conditions for Safe Storage Store away from oxidizing agents. Keep container tightly closed and dry, away from direct sunlight and other sources of heat or ignition. Store at room temperature (15 - 25 °C).

Storage Regulations Australia: Classified as a Class C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS1940. This product should be stored and used in a well-ventilated area away from naked flames, sparks, and other sources of ignition.

8: Exposure controls/personal protection

National Exposure Standards No exposure standards have been established for the mixture by Safe Work Australia or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.

Biological Limit Values No biological limits allocated.

Engineering Controls Provide sufficient ventilation to keep airborne levels below the exposure as low as possible. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Alternatively, a process enclosure system such as a fume cupboard should be employed.

Respiratory Protection If engineering controls are not effective in controlling airborne exposure, then an approved respirator should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear laminated film or other impervious, suitable gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Body Protection Suitable protective clothing should be worn e.g. cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended.

9: Physical and chemical properties

Form : Liquid
Appearance : Colourless liquid, hygroscopic.
Odour : Nearly odourless to a garlic-like odour.
Melting Point : 18.5 °C
Boiling Point : 189 °C
Solubility in Water : Soluble in water.
Solubility in Organic solvents : Soluble in alcohols, esters, ketones, chlorinated solvents and aromatic hydrocarbons.
Specific Gravity : 1.10
Vapour Pressure : 0.6 hPa @ 20 °C
Vapour Density (Air=1) : 2.7
Evaporation Rate : 4.3 (CCl₄ = 1)
Viscosity : 2.14 mPa @ 20 °C
Volatile Component : 100%
Partition Coefficient: n-octanol/water : Log P(o/w): -1.35.
Flash Point : 95 °C (O.C.)
Flammability : Combustible.
Auto-Ignition Temperature : 300 °C
Flammable Limits – Lower : 1.8 vol%
Flammable Limits – Upper : 63 vol%
Molecular Weight : 78.13

Other Information
Taste: : Onion or garlic-like.

10: Stability and reactivity

Chemical Stability Stable under normal conditions of storage and handling.

Conditions to Avoid Heat, open flames and other sources of ignition.

Incompatible Materials Dangerous reaction with organic and inorganic acid chlorides, bromides (sulphur, phosphorus, methyl), potassium or sodium hydride. Reacts dangerously with strong oxidizing agents.

Hazardous Decomposition Products Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide, carbon dioxide and oxides of sulphur.

Hazardous Polymerization Will not occur.

11: Toxicological information

Toxicology Information Given below:
Human experience in industry: Skin irritant. Histaminic type reaction.

Inhalation Vapours or spray mist may be irritating to the respiratory system.

Ingestion	Ingestion of this product may irritate the gastric tract, causing nausea and vomiting.
Skin	Irritating to skin. It may cause redness and itching.
Eye	Irritating to eyes. May cause stinging, redness and tearing of the eyes.
Chronic Effects	Not available
Acute Toxicity - Oral	LD50 (Rat): : 15-20 g/kg.
Acute Toxicity - Inhalation	LC50 (Rat): 1.6 g/m ³ /4h

12: Ecological information

Ecotoxicity	Not available
Persistence / Degradability	Not available
Mobility	Not available
Bioaccumulative Potential	Not available
Environment Protection	Do not allow product to enter drains, waterways, or sewers.

13: Disposal considerations

Disposal Considerations	<p>Product Disposal:</p> <p>Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. In this specific case the product is a combustible substance and therefore can be sent to an approved high temperature incineration plant for disposal.</p> <p>Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.</p> <p>Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected. In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.</p> <p>Container Disposal:</p> <p>The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.</p> <p>Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.</p> <p>In New Zealand, the packaging (that may or may not hold any residual substance)</p>
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that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

14: Transport Information Table

Transport Information	Australia: Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition). New Zealand: Not classified as Dangerous Goods for transport according to the NZS 5433:2007 Transport of Dangerous Goods on Land.
IMDG Marine Pollutant (MP)	No

15: Regulatory information

Regulatory Information	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Poisons Schedule	S6
National and or International Regulatory Information	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempted. HSNO (CCID) Name: Dimethyl sulphoxide
Hazard Category	Irritant
AICS (Australia)	All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

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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