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| Infosafe No™ 1CHGI | Issue Date : June 2021 | RE-ISSUED by CHEMSUPP |
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Product Name **DIMETHYL SULFOXIDE**

Not classified as hazardous

1. Identification

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| GHS Product Identifier | DIMETHYL SULFOXIDE | |
| Company Name | CHEMSUPPLY AUSTRALIA 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) | |
| E-mail Address | www.chemsupply.com.au | |
| Recommended use of the chemical and restrictions on use | Solvent for polymerization and cyanide reactions, spinning polyacrylonitrile and other synthetic fibres, industrial cleaners, pesticides, paint stripping, hydraulic fluids, preservation of cells at low temperature, diffusion of drugs, etc, into blood stream by topical application, medicine (anti-inflammatory), plant pathology and nutrition, pharmaceutical products, metal-complexing agent and laboratory reagent. | |
| Other Names | <u>Name</u> | <u>Product Code</u> |
| | DMSO | |
| | Methyl sulfoxide | |
| | DIMETHYL SULFOXIDE AR | DA013 |

Other Information

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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

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| GHS classification of the substance/mixture | Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia. Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG). |
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3. Composition/information on ingredients

| Ingredients | <u>Name</u> | <u>CAS</u> | <u>Proportion</u> |
|-------------|--------------------|------------|-------------------|
| | Dimethyl Sulfoxide | 67-68-5 | 100 % |

4. First-aid measures

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| 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 contact | Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If rapid recovery does not occur, obtain medical attention |

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| 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 a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor. |

5. Fire-fighting measures

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| Hazards from Combustion Products | May evolve toxic fumes of sulfur and carbon oxides in fire. |
| Specific Methods | Small fire: Use dry chemical, CO ₂ , water spray or foam. Large fire: Use water spray, fog or foam. 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. |
| Specific hazards arising from the chemical | May burn but do not ignite readily. Runoff may pollute waterways. Fire may produce irritating, poisonous and/or corrosive fumes. Containers may explode when heated. |
| Precautions in connection with Fire | Wear SCBA and structural firefighter's uniform. |

6. Accidental release measures

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| Personal Precautions | Avoid inhalation, contact with skin, eyes and clothing. Remove ignition sources Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. |
| 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. |

7. Handling and storage

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| Precautions for Safe Handling | Do not breathe vapour. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. |
| Conditions for safe storage, including any incompatibilities | 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). |

8. Exposure controls/personal protection

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| Other Exposure Information | No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m ³ . All atmospheric contamination should be kept to as low a level as is workable. 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. |
| 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 | Usually is not required. Where protection is required from nuisance levels of dust or mists select respiratory protection that complies with AS 1716 - Respiratory Protective Devices and select in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. |
| 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. |

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| 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. |
| 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 | Clean impervious clothing should be worn. 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

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| 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 ordinary conditions of use and storage. Hygroscopic

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| Conditions to Avoid | Strond heat, flames, ignition sources and incompatibles. |
| Incompatible Materials | Strong oxidisers, strong acids, acylhalides, arylhalides, bromobenzoyl acetanilide, magnesium perchlorate, perchloric acid and sodium hydroxide. |
| Hazardous Decomposition Products | Upon heating above 100C (212F), sulfur dioxide is evolved from this substance. Hazardous thermo-oxidative degradation products from DMSO include formaldehyde, methyl mercaptan, carbon dioxide, carbon monoxide and sulfur dioxide. |
| Possibility of hazardous reactions | Forms explosive mixtures with air on intense heating. |
| Hazardous Polymerization | Will not occur. |

11. Toxicological Information

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| Ingestion | Expected to be a low ingestion hazard. |
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin | No adverse effects due to skin contact are expected. |
| Eye | Direct contact with eyes may cause temporary 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. |
| Reproductive Toxicity | Not classified based on available information. |
| STOT-single exposure | Not classified based on available information. |
| STOT-repeated exposure | Not classified based on available information. |
| Mutagenicity | Not classified based on available information. |

12. Ecological information

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| Ecological Information | No ecological problems are to be expected when the product is handled and used with due care and attention. |
| Persistence and degradability | Abiotic degradation: Rapid degradation. (air) Biologic degradation: Biodegradation: 3.1%/14 d. Not biodegradable. |
| Bioaccumulative Potential | No bioaccumulation is to be expected (log P(o/w <1). |
| Acute Toxicity - Bacteria | EC50 (Activated sludge): 10-100 mg/l/30 min |

13. Disposal considerations

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| Disposal Considerations | Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations. |
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14. Transport information

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| Transport Information | Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. |
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15. Regulatory information

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| Regulatory Information | All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. |
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Poisons Schedule S6

16. Other Information

Literature References 'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia.
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.
Safe Work Australia, 'Hazardous Chemical Information System'.
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

Contact Person/Point Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**
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Empirical Formula & Structural Formula C2 H6 OS
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