

**MSDS DA0131** Date of Issue/re-issue: **28.01.2015**

User declaration:- I have read and understood this Safety Data Sheet

Name:- \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name



Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666 Tel +64 9 480 4386 FAX +64 9 480 4385

|                |                           |             |                    |                        |               |
|----------------|---------------------------|-------------|--------------------|------------------------|---------------|
| <b>Product</b> | <b>Dimethyl Sulfoxide</b> |             |                    | <b>Code</b>            | <b>DA0131</b> |
| <b>CAS#</b>    | <b>HSNO#</b>              | <b>UN #</b> | <b>DG Class/es</b> | <b>Packing group #</b> |               |
| 67-68-5        |                           | n/a         | n/a                | n/a                    |               |

**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.

**Hazard Classification** 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

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.

Hazard statement codes:

H227 Combustible liquid.

H316 Causes mild skin irritation.

H319 Causes serious eye irritation.

H432 Toxic to terrestrial vertebrates.

Precautionary statement codes - Prevention:

P103 Read label before use.

P104 Read Safety Data Sheet before use.

P210 Keep away from heat/sparks/open flames/hot surfaces.

P264 Wash hands thoroughly after handling.

P273 Avoid release to the environment.

Precautionary statement codes - Response:

P370+P378 In case of fire: Use appropriate media for extinction.

P391 Collect spillage.

EYES:

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/attention.

SKIN:

P332+P313 If skin irritation occurs: Get medical advice/ attention.

Precautionary statement codes - Storage:

P403+P235 Store in a well-ventilated place. Keep cool.

Precautionary statement codes - Disposal:

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

#### Other Information

This product may cause an unusual garlic-onion-oyster smell on body and breath. DMSO readily penetrates the skin and may carry other dissolved chemicals into the body.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

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### 4. FIRST AID MEASURES

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#### Inhalation

Remove affected person from exposure. Keep at rest until fully recovered. If symptoms persist seek medical attention.

#### Ingestion

Do not induce vomiting. Rinse mouth thoroughly with water. If symptoms persist seek medical attention.

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| <b>Skin</b>                 | If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Seek medical attention.   |
| <b>Eye</b>                  | 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. |
| <b>First Aid Facilities</b> | Eye wash station and normal washroom facilities.   |
| <b>Advice to Doctor</b>     | Treat symptomatically.   |
| <b>Other Information</b>    | 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.   |

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## 5. FIRE FIGHTING MEASURES

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| <b>Suitable Extinguishing Media</b>        | Foam, dry chemical powder, carbon dioxide, water fog or water spray.  |
| <b>Hazards from Combustion Products</b>    | Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including carbon monoxide, carbon dioxide and oxides of sulphur.   |
| <b>Specific Hazards</b>                    | 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. |
| <b>Decomposition Temp.</b>                 | >190°C  |
| <b>Precautions in connection with Fire</b> | 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.   |

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## 6. ACCIDENTAL RELEASE MEASURES

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| <b>Emergency Procedures</b> | Increase ventilation. Remove all sources of ignition. Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe mist/vapour. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Avoid exposure to spillage by collecting the material using explosion proof vacuum and transfer into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations. |
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## 7. HANDLING AND STORAGE

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| <b>Precautions for Safe Handling</b> | Avoid contact with skin and eyes. Wear overalls, impervious gloves and safety glasses. Use only in well ventilated areas. Avoid breathing vapour or spray mist. Keep containers closed when not in use. Do not empty into drains. Do not use near ignition sources. Do not |
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pressurise, cut, heat or weld containers. Maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.

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| <b>Conditions for Safe Storage</b> | Store in a cool, dry, well ventilated area away from oxidising agents, acids and bases. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. |
| <b>Storage Regulations</b>         | 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.  |

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| <b>National Exposure Standards</b> | 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.                 |
| <b>Biological Limit Values</b>     | No biological limits allocated.  |
| <b>Engineering Controls</b>        | 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.                                    |
| <b>Respiratory Protection</b>      | 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. |
| <b>Eye Protection</b>              | 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.   |
| <b>Hand Protection</b>             | 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.   |
| <b>Body Protection</b>             | 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.  |

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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| <b>Appearance</b>                | Clear yellow liquid  |
| <b>Odour</b>                     | Characteristic odour |
| <b>Decomposition Temperature</b> | >190°C               |
| <b>Melting Point</b>             | 18.4°C               |
| <b>Boiling Point</b>             | 189°C                |
| <b>Solubility in Water</b>       | Soluble at 20°C      |
| <b>Specific Gravity</b>          | 1.10                 |
| <b>pH Value</b>                  | Not available        |
| <b>Vapour Pressure</b>           | 0.55 mbar at 20°C    |
| <b>Vapour Density (Air=1)</b>    | >1                   |
| <b>Viscosity</b>                 | 2.14 mPa.s at 20°C   |
| <b>Volatile Component</b>        | 100%                 |
| <b>Flash Point</b>               | 87°C                 |
| <b>Flammability</b>              | Combustible liquid   |
| <b>Auto-Ignition Temperature</b> | 215°C                |
| <b>Flammable Limits - Lower</b>  | 3%                   |
| <b>Flammable Limits - Upper</b>  | 63%                  |

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## 10. STABILITY AND REACTIVITY

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| <b>Chemical Stability</b>               | Stable under normal conditions of storage and handling.  |
| <b>Conditions to Avoid</b>              | Heat, open flames and other sources of ignition.   |
| <b>Incompatible Materials</b>           | Dangerous reaction with organic and inorganic acid chlorides, bromides(sulphur, phosphorus, methyl), potassium or sodium hydride. Reacts dangerously with strong oxidizing agents. |
| <b>Hazardous Decomposition Products</b> | Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide, carbon dioxide and oxides of sulphur.                                  |

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|---------------------------------|-----------------|
| <b>Hazardous Polymerization</b> | Will not occur. |
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## 11. TOXICOLOGICAL INFORMATION

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| <b>Toxicology Information</b>      | Given below:<br>Human experience in industry: Skin irritant. Histaminic type reaction. |
| <b>Inhalation</b>                  | Vapours or spray mist may be irritating to the respiratory system.                     |
| <b>Ingestion</b>                   | Ingestion of this product may irritate the gastric tract, causing nausea and vomiting. |
| <b>Skin</b>                        | Irritating to skin. It may cause redness and itching.                                  |
| <b>Eye</b>                         | Irritating to eyes. May cause stinging, redness and tearing of the eyes.               |
| <b>Chronic Effects</b>             | Not available  |
| <b>Acute Toxicity - Oral</b>       | LD50 (Rat): : 15-20 g/kg.  |
| <b>Acute Toxicity - Inhalation</b> | LC50 (Rat): 1.6 g/m <sup>3</sup> /4h   |

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## 12. ECOLOGICAL INFORMATION

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

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## 13. DISPOSAL CONSIDERATIONS

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| <b>Disposal Considerations</b> | <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> |
|--------------------------------|--|

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.

**Container Disposal:**

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.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) 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.

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## 14. TRANSPORT INFORMATION

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**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

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## 15. REGULATORY INFORMATION

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**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).

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## 16. Disclaimer

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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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