

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** DIMETHYL SULFOXIDE

**Other name(s):** Dimethyl sulphoxide; DMSO.

**Recommended Use of the Chemical and Restrictions on Use** Solvent.

**Supplier:** Ixom Operations Pty Ltd (Incorporated in Australia)  
**NZBN:** 9429041465226  
**Street Address:** 166 Totara Street  
Mt Maunganui South  
New Zealand

**Telephone Number:** +64 9 368 2700  
**Facsimile:** +64 9 368 2710  
**Emergency Telephone:** **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

**SIGNAL WORD:** WARNING

**Subclasses:**

Subclass 3.1 Category D (low hazard) - Flammable Liquids.  
Subclass 6.3 Category B - Substances that are mildly irritating to the skin.  
Subclass 6.4 Category A - Substances that are irritating to the eye.  
Subclass 9.3 Category B - Substances that are ecotoxic to terrestrial vertebrates.

Approval Number: HSR002978



**Hazard Statement(s):**

H227 Combustible liquid.  
H316 Causes mild skin irritation.  
H320 Causes eye irritation.  
H432 Toxic to terrestrial vertebrates.

**Precautionary Statement(s):**

**Prevention:**

P103 Read label before use.  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P264 Wash hands thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves, protective clothing, eye and face protection.

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Substance No: 000000017773

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## Response:

P370+P378 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet for extinction.  
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.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P391 Collect spillage.

## Storage:

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

## Disposal:

P501 In 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) Notice 2017. This may also include any method of disposal that must be avoided.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Dimethyl sulfoxide	67-68-5	>=99.0%	-

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

### Skin Contact:

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

### Eye Contact:

If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

### Ingestion:

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Never give anything by the mouth to an unconscious patient. Seek medical advice.

### Indication of immediate medical attention and special treatment needed:

Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

### Unsuitable Extinguishing Media:

Water jet.

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## Specific hazards arising from the chemical:

Combustible liquid. On burning will emit toxic fumes, including those of oxides of carbon , oxides of sulfur . Vapour may travel a considerable distance to source of ignition and flash back.

## Special protective equipment and precautions for fire-fighters:

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency procedures/Environmental precautions:

Shut off all possible sources of ignition. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid skin and eye contact and breathing in vapour, mists and aerosols. Take precautionary measures against static discharges.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated place. Protect from moisture. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Workplace Exposure Standards:** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority.

### Appropriate engineering controls:

Use in well ventilated areas. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

### Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, RESPIRATOR.



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Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Clear Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Not available
<b>Molecular Formula:</b>	(CH <sub>3</sub> ) <sub>2</sub> SO
<b>Solubility:</b>	Miscible in water.
<b>Specific Gravity:</b>	1.1
<b>Relative Vapour Density (air=1):</b>	2.70
<b>Vapour Pressure (20 °C):</b>	0.55 hPa
<b>Flash Point (°C):</b>	87 (Closed Cup)
<b>Flammability Limits (%):</b>	3.5-42% (V)
<b>Autoignition Temperature (°C):</b>	215
<b>Melting Point/Range (°C):</b>	16-19
<b>Boiling Point/Range (°C):</b>	189
<b>pH:</b>	Not available

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Hygroscopic: absorbs moisture or water from surrounding air.
<b>Chemical stability:</b>	Stable.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with foodstuffs.
<b>Incompatible materials:</b>	Incompatible with acid chlorides, phosphorus halides, strong acids, strong oxidising agents, strong reducing agents.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of sulfur.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	Swallowing may result in irritation of the gastrointestinal tract.
<b>Eye contact:</b>	A mild eye irritant.
<b>Skin contact:</b>	Contact with skin will result in mild irritation.
<b>Inhalation:</b>	Breathing in vapour may produce respiratory irritation.

### Acute toxicity:

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Oral LD50 (rat): 14500 mg/kg  
Dermal LD50 (rabbit): >5000 mg/kg  
Inhalation LC50 (rat): 40250 ppm/4hr

**Respiratory or skin sensitisation:** No information available.

**Chronic effects:** Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).

**Aspiration hazard:** No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Avoid contaminating waterways.

**Persistence/degradability:** The material is not readily biodegradable.

**Bioaccumulative potential:** No information available.

**Mobility in soil:** No information available.

48hr EC50 (Daphnia magna): 24600 mg/L  
96hr LC50 (rainbow trout): 35000 mg/L  
96hr LC50 (fathead minnow): 34000 mg/L

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Not classified as a Dangerous Good under NZS 5433:2012 Transport of Dangerous Goods on Land.

### Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

### Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

## 15. REGULATORY INFORMATION

### Classification:

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

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**Subclasses:**

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## 16. OTHER INFORMATION

Supplier Safety Data Sheet; 01/ 2016.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

**Reason(s) for Issue:**

Reissue of an obsolete SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.