

# SAFETY DATA SHEET



Revision date: 29-Jul-2024

Revision Number 4

## Section 1: Identification

### Product identifier

**Product Name** DIMETHYLAMINE AQUEOUS SOLUTIONS

**Product Code(s)** 000000018991

### Other means of identification

**UN number or ID number** 1160

**Synonyms** Dimethyl amine 60% solution; DMA 60; DMA60-150.

### Recommended use of the chemical and restrictions on use

**Recommended use** Laboratory reagent.

**Uses advised against** No information available.

### Details of manufacturer or importer

#### **Supplier**

IXOM Operations Pty Ltd  
ABN: 51 600 546 512  
Level 8, 1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9906 3000

### Emergency telephone number

Emergency telephone number **1 800 033 111 (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.

## Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).  
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

### GHS Classification

<b>Flammable liquids</b>	Category 1
<b>Acute toxicity - Oral</b>	Category 4
<b>Acute toxicity - Inhalation (Vapors)</b>	Category 4
<b>Skin corrosion/irritation</b>	Category 1 Sub-category B
<b>Serious eye damage/eye irritation</b>	Category 1
<b>Specific target organ toxicity (single exposure)</b>	Category 3

### Label elements

Flame

Corrosion  
Exclamation mark**Signal word**  
DANGER**Hazard statements**

H224 - Extremely flammable liquid and vapor  
 H302 - Harmful if swallowed  
 H314 - Causes severe skin burns and eye damage  
 H332 - Harmful if inhaled  
 H335 - May cause respiratory irritation

**Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 Keep container tightly closed.  
 Ground and bond container and receiving equipment.  
 Use explosion-proof electrical/ ventilating/ lighting/ / equipment.  
 Use only non-sparking tools.  
 Take action to prevent static discharges.  
 Do not breathe mist, vapours, spray.  
 Wash face, hands and any exposed skin thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/clothing and eye/face protection.  
 Wear respiratory protection.

**Precautionary Statements - Response**

Specific treatment is urgent (see First aid on this SDS).  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER or doctor/physician.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Wash contaminated clothing before reuse.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Immediately call a POISON CENTER or doctor/physician.  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 Rinse mouth.  
 Do NOT induce vomiting.  
 In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish..

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

**Other hazards which do not result in classification****Section 3: Composition and information on ingredients**

Chemical name	CAS No.	Weight-%
Dimethylamine % in water	124-40-3	>=60
Non hazardous component(s)	-	to 100

**Section 4: First aid measures****Description of first aid measures**

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Give artificial respiration if victim is not breathing. Call a physician or poison control center immediately.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical attention.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning. Coughing and/ or wheezing. Difficulty in breathing.
<b>Effects of Exposure</b>	No information available.

**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically. Can cause corneal burns.
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**Section 5: Firefighting measures****Suitable Extinguishing Media**

<b>Suitable extinguishing media</b>	Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray or water fog can be used.
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<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
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**Specific hazards arising from the chemical**

<b>Specific hazards arising from the chemical</b>	Extremely flammable. Vapours can form an explosive mixture with air. Pay attention to flashback. On burning will emit toxic fumes, including those of oxides of carbon.
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<b>Hazardous combustion products</b>	Carbon oxides. Nitrogen oxides.
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**Special protective actions for fire-fighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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<b>Hazchem code</b>	•2WE
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**Section 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not touch or walk through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Evacuate personnel to safe areas. Pay attention to flashback. Stop leak if you can do it without risk. Use personal protective equipment as required. Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking. All equipment may need to be explosion-proof based on a risk assessment.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use non-sparking tools.

**Section 7: Handling and storage****Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking and explosion proof. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Keep in an area equipped with sprinklers. Use personal protection equipment. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from sources of heat or ignition. Keep container closed when not in use.

**Incompatible materials** Acids. Acrylaldehyde. Permanganates. Fluorine. Chlorine. Mercury. Oxidizing agents. Maleic anhydride. Some plastics. Rubber.

**Section 8: Exposure controls and personal protection****Control parameters**

**Exposure Limits** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s):

Chemical name	Australia	New Zealand	ACGIH TLV
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Dimethylamine % in water 124-40-3	TWA: 2 ppm TWA: 3.8 mg/m <sup>3</sup> STEL: 6 ppm STEL: 11 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3.8 mg/m <sup>3</sup>	TWA: 5 ppm STEL: 15 ppm dermal sensitizer
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Chemical name	European Union	United Kingdom	Germany DFG
Dimethylamine % in water 124-40-3	TWA: 2 ppm TWA: 3.8 mg/m <sup>3</sup> STEL: 5 ppm STEL: 9.4 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3.8 mg/m <sup>3</sup> STEL: 6 ppm STEL: 11 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 3.7 mg/m <sup>3</sup> Peak: 4 ppm Peak: 7.4 mg/m <sup>3</sup>

Dimethylamine: 8hr TWA = 3.8 mg/m<sup>3</sup> (2 ppm), 15 min STEL = 11 mg/m<sup>3</sup> (6 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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

#### Engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

### Individual protection measures, such as personal protective equipment

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, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.



#### Eye/face protection

Tight sealing safety goggles. If splashes are likely to occur: Face protection shield.

#### Skin and body protection

Antistatic boots. Chemical resistant apron. Wear fire/flame resistant/retardant clothing. Overalls.

#### Hand protection

Elbow-length impervious gloves.

#### Respiratory protection

If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator

meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Environmental exposure controls** No information available.**Thermal hazards** No information available.**Section 9: Physical and chemical properties****Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear
<b>Color</b>	Colourless
<b>Odor</b>	Ammonia
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	>7	
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	No data available	
<b>Boiling point / boiling range</b>	36°C (60% solution)	
<b>Flash point</b>	-18°C	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	14.4%	
<b>Lower flammability or explosive limits</b>	2.8%	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	0.83-0.93	
<b>Water solubility</b>	No data available	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	430°C	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information****Section 10: Stability and reactivity****Reactivity****Reactivity** Reacts violently with acids.**Chemical stability****Stability** Stable under normal conditions.**Explosion data****Sensitivity to mechanical impact** None.**Sensitivity to static discharge** Yes.**Possibility of hazardous reactions****Possibility of hazardous reactions** None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** Heat, flames and sparks.

**Incompatible materials**

**Incompatible materials** Acids. Acrylaldehyde. Permanganates. Fluorine. Chlorine. Mercury. Oxidizing agents. Maleic anhydride. Some plastics. Rubber.

**Hazardous decomposition products**

**Hazardous decomposition products** Carbon oxides. Nitrogen oxides.

## Section 11: Toxicological information

**Information on likely routes of exposure**

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

**Inhalation** Irritating to respiratory system. Harmful by inhalation.

**Eye contact** Causes serious eye damage.

**Skin contact** Causes severe burns.

**Ingestion** Can burn mouth, throat, and stomach. Harmful if swallowed.

**Symptoms** Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning. Coughing and/ or wheezing. Difficulty in breathing.

**Acute toxicity**

**Numerical measures of toxicity - Product Information**

No information available

**Inhalation LC50**

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Dimethylamine % in water	= 698 mg/kg ( Rat )	= 3900 mg/kg ( Rat )	= 7340 ppm ( Rat ) 20 min

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Causes severe burns. Classification is based on mixture calculation methods based on component data.

**Serious eye damage/eye irritation** Causes serious eye damage. Classification is based on mixture calculation methods based on component data.

**Respiratory or skin sensitization** No information available.

<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Not listed as carcinogenic according to IARC. (IARC - International Agency for Research on Cancer).
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	May cause respiratory irritation. Classification is based on mixture calculation methods based on component data.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Chronic effects:</b>	Repeated or prolonged skin contact may cause dermatitis. May cause conjunctivitis. May cause lung disorders.

## Section 12: Ecological information

### Ecotoxicity

**Aquatic ecotoxicity** Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Dimethylamine % in water	EC50: =9mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 111 - 125mg/L (96h, Oncorhynchus mykiss) LC50: =120mg/L (96h, Oncorhynchus mykiss) LC50: =210mg/L (96h, Poecilia reticulata) LC50: 127 - 349mg/L (96h, Poecilia reticulata) LC50: =396mg/L (96h, Brachydanio rerio)	-	EC50: =88.7mg/L (48h, Daphnia magna Straus)

**Terrestrial ecotoxicity** There is no data for this product.

### Persistence and degradability

**Persistence and degradability** No information available.

### Bioaccumulative potential

**Bioaccumulation** There is no data for this product.



**Component Information**

Chemical name	Partition coefficient
Dimethylamine % in water	-0.274

**Mobility**

**Mobility** No information available.

**Other adverse effects**

**Other adverse effects** No information available.

**Section 13: Disposal considerations****Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with federal, state and local regulations.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

See section 8 for more information

**Section 14: Transport information**

**ADG** Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**UN number or ID number** 1160  
**Proper shipping name** DIMETHYLAMINE AQUEOUS SOLUTION  
**Transport hazard class(es)** 3  
**Subsidiary hazard class** 8  
**Packing group** II  
**Hazchem code** •2WE

**IATA** Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN number** 1160  
**UN proper shipping name** DIMETHYLAMINE, AQUEOUS SOLUTION  
**Transport hazard class(es)** 3  
**Subsidiary hazard class** 8  
**Packing group** II

**IMDG** Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN number** 1160  
**UN proper shipping name** DIMETHYLAMINE, AQUEOUS SOLUTION  
**Transport hazard class(es)** 3  
**Subsidiary hazard class** 8  
**Packing group** II  
**IMDG EMS Fire** F-E  
**IMDG EMS Spill** S-C  
**Marine pollutant** Not applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
 No information available

**Section 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).  
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

See section 8 for national exposure control parameters

**Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)**

No poisons schedule number allocated

**Poison Schedule Number** Not applicable

**Australian Industrial Chemicals Introduction Scheme (AICIS)**

Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Dimethylamine % in water - 124-40-3	Present	-

**Illicit Drug Precursors/Reagents**

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

**National pollutant inventory**

Subject to reporting requirement

Chemical name	National pollutant inventory
Dimethylamine % in water - 124-40-3	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

**International Inventories****AIIC**

All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

**NZIoC**

Contact supplier for inventory compliance status.

**TSCA**

Contact supplier for inventory compliance status.

**DSL/NDSL**

Contact supplier for inventory compliance status.

**EINECS/ELINCS**

Contact supplier for inventory compliance status.

**ENCS**

Contact supplier for inventory compliance status.

**IECSC**

Contact supplier for inventory compliance status.

**KECL**

Contact supplier for inventory compliance status.

**PICCS**

Contact supplier for inventory compliance status.

**Legend:**

**AIIC- Australian Inventory of Industrial Chemicals****NZIoC - New Zealand Inventory of Chemicals****TSCA - United States Toxic Substances Control Act Section 8(b) Inventory****DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List****EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances****ENCS - Japan Existing and New Chemical Substances****IECSC - China Inventory of Existing Chemical Substances****KECL - Korean Existing and Evaluated Chemical Substances****PICCS - Philippines Inventory of Chemicals and Chemical Substances****International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**Section 16: Other information****Reason(s) For Issue:** 5 Yearly Revised Primary SDS  
Updated Formulation**Prepared By** This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and SDS Services).**Revision date:** 29-Jul-2024**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

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National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
Australian Industrial Chemicals Introduction Scheme (AICIS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Disclaimer**

**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.**

**End of Safety Data Sheet**