# SAFETY DATA SHEET

**Revision date:** 26-Nov-2024

**Revision Number** 6

## Section 1: Identification

**Product identifier**

**Product Name** MALEIC ANHYDRIDE (ALL GRADES)

**Product Code(s)** 000031070201

**Other means of identification**

**UN number or ID number** 2215

**CAS No.** 108-31-6

**Synonyms** 2,5-Furandione; Toxilic anhydride; Maleic acid anhydride; Butenedioic anhydride, cis-.

**Pure substance/mixture** Substance

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

**Recommended use** Chemical intermediate for resin manufacture.

**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**

| | |
|---|---|
| **Acute toxicity - Oral** | Category 4 |
| **Acute toxicity - Inhalation (Dusts/Mists)** | Category 4 |
| **Skin corrosion/irritation** | Category 1 Sub-category B |
| **Serious eye damage/eye irritation** | Category 1 |
| **Respiratory sensitization** | Category 1 |
| **Skin sensitization** | Category 1A |

| | |
|---|---|
| **Specific target organ toxicity (single exposure)** | Category 3 |
| **Specific target organ toxicity (repeated exposure)** | Category 2 |

**Label elements**
Corrosion
Health hazard
Exclamation mark


**Signal word**
DANGER

**Hazard statements**
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H372 - Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements - Prevention**
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash face, hands and any exposed skin thoroughly after handling.
Wash eyes 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.
In case of inadequate ventilation wear respiratory protection.
Contaminated work clothing must not be allowed out of the workplace.
**Precautionary Statements - Response**
Get medical advice/attention if you feel unwell.
Specific treatment (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: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
**Precautionary Statements - Storage**
Store in a well-ventilated place. Keep container tightly closed.
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**
May form combustible dust concentrations in air.
Corrosive to the respiratory tract.

Sternutator.

## Section 3: Composition and information on ingredients

| Chemical name | CAS No. | Weight-% |
|---|---|---|
| Maleic anhydride | 108-31-6 | 100% |

## Section 4: First aid measures

**Description of first aid measures**

**General advice** For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.

**Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact** IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

**Ingestion** Rinse mouth thoroughly with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Never give anything by mouth to an unconscious person. Get immediate medical attention.

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

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

**Effects of Exposure** No information available.

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

**Note to physicians** Treat symptomatically. Can cause corneal burns.

## Section 5: Firefighting measures

**Suitable Extinguishing Media**

**Suitable extinguishing media** Dry chemical, CO2, water spray or regular foam.

**Unsuitable extinguishing media** Dry sodium carbonate.

**Specific hazards arising from the chemical**

**Specific hazards arising from the chemical** Corrosive hazard. Wear protective gloves/clothing and eye/face protection. Combustible solid. Most organic dusts are combustible and according to the circumstances under which the combustion process occurs, such materials may cause fires and/or dust explosions. Organic powders when finely divided over a range of concentrations regardless of

particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC).
When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture will be lower than the individual LELs for the vapors/mists or dusts.
Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large-scale explosions have resulted from chain reactions of this type. Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. Build-up of electrostatic charge may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. A sudden release of statically charged materials from storage or process equipment, particularly at elevated temperatures and/ or pressure, may result in ignition especially in the absence of an apparent ignition source. One important effect of the particulate nature of powders is that the surface area and surface structure (and often moisture content) can vary widely from sample to sample, depending on how the powder was manufactured and handled which means that it is virtually impossible to use flammability data published in the literature for dusts.

**Hazardous combustion products** Carbon oxides.

**Special protective actions for fire-fighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Hazchem code** 2X

## Section 6: Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin and eyes. Do not breathe dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Stop leak if you can do it without risk. Do not touch or walk through spilled material. Use personal protective equipment as required. Wash thoroughly after handling.

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

**Environmental precautions**

**Environmental precautions** Local authorities should be advised if significant spillages cannot be contained.

**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** Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

## Section 7: Handling and storage

**Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Do not breathe dust. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. 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. 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. Keep away from open flames, hot surfaces and sources of ignition. Protect from moisture. Keep container closed when not in use.

**Incompatible materials** Water. Alkali metals. Amines. Bases. Strong acids. Oxidizing agents. Combustible material.

## Section 8: Exposure controls and personal protection

**Control parameters**

**Exposure Limits**

| Chemical name | Australia | New Zealand | ACGIH TLV |
|---|---|---|---|
| Maleic anhydride<br>108-31-6 | TWA: 0.25 ppm<br>TWA: 1 mg/m³ | TWA: 0.0025 ppm<br>TWA: 0.01 mg/m³ | TWA: 0.01 mg/m³ inhalable fraction and vapor<br>dermal sensitizer;respiratory sensitizer |

| Chemical name | European Union | United Kingdom | Germany DFG |
|---|---|---|---|
| Maleic anhydride<br>108-31-6 | - | TWA: 1 mg/m³<br>STEL: 3 mg/m³<br>Sen+ | TWA: 0.02 ppm<br>TWA: 0.081 mg/m³<br>Peak: 0.02 ppm<br>Peak: 0.081 mg/m³<br>respiratory and skin sensitizer |

Maleic anhydride: 8hr TWA = 1 mg/m³ (0.25 ppm), Sen

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.

`Sen' Notice - sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to exposure to minute levels of that substance and should not be further exposed to the substance.

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, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.

| | |
|---|---|
| **Eye/face protection** | Tight sealing safety goggles. |
| **Skin and body protection** | Boots. Wear suitable protective clothing. Overalls. |
| **Hand protection** | Elbow-length impervious gloves. |
| **Respiratory protection** | If determined by a risk assessment an inhalation risk exists, wear a dust mask/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**

| | |
|---|---|
| **Physical state** | Solid |
| **Appearance** | No information available |
| **Color** | White |
| **Odor** | Irritating |
| **Odor threshold** | 0.3 ppm |

| **Property** | **Values** | **Remarks • Method** |
|---|---|---|
| **pH** | Not applicable | None known |
| **pH (as aqueous solution)** | No data available | None known |
| **Melting point / freezing point** | 52.8℃ | None known |
| **Boiling point / boiling range** | 197-199℃ | None known |
| **Flash point** | 102℃ | None known |
| **Evaporation rate** | No data available | None known |
| **Flammability (solid, gas)** | No data available | None known |
| **Flammability Limit in Air** | | None known |
| **Upper flammability or explosive limits** | 7.10% | |
| **Lower flammability or explosive limits** | 1.40% | |
| **Vapor pressure** | 1 mmHg @ 44℃ | None known |
| **Vapor density** | 3.4 (air=1) | None known |
| **Relative density** | 1.48 @ 20°C | None known |
| **Water solubility** | Reacts slowly | None known |

| | | |
|---|---|---|
| **Solubility(ies)** | No data available | None known |
| **Partition coefficient** | No data available | None known |
| **Autoignition temperature** | 477°C | None known |
| **Decomposition temperature** | No data available | None known |
| **Kinematic viscosity** | No data available | None known |
| **Dynamic viscosity** | 16.1 cP @ 60°C | None known |

**Other information**

## Section 10: Stability and reactivity

**Reactivity**

**Reactivity** Reacts with amines.

**Chemical stability**

**Stability** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** Maleic anhydride reacts slowly to form maleic acid. Reacts with alcohols to form esters. Reacts with amines and can decarboxylate or polymerize at temperatures above 150°C; reaction may be explosive.

**Conditions to avoid**

**Conditions to avoid** Direct sunlight. Moisture. Dispersal of dust in the air.

**Incompatible materials**

**Incompatible materials** Water. Alkali metals. Amines. Bases. Strong acids. Oxidizing agents. Combustible material.

**Hazardous decomposition products**

**Hazardous decomposition products** Carbon 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. Corrosive to the respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Harmful if inhaled. May cause sensitization by inhalation.

**Eye contact** Corrosive to the eyes and may cause severe damage including blindness.

**Skin contact** Causes severe burns. May cause sensitization by skin contact.

**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**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Maleic anhydride | = 400 mg/kg ( Rat ) | = 2620 mg/kg ( Rabbit ) | = 4.4 mg/L ( Rat ) |

*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.

**Serious eye damage/eye irritation** Causes serious eye damage.

**Respiratory or skin sensitization** A respiratory sensitizer. (rat). A skin sensitizer. (guinea pig).

**Germ cell mutagenicity** Not mutagenic in AMES Test.

**Carcinogenicity** Not listed as carcinogenic according to IARC.
(IARC - International Agency for Research on Cancer).

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure if inhaled.

**Aspiration hazard** No information available.

## Section 12: Ecological information

**Ecotoxicity**

**Aquatic ecotoxicity** Keep out of waterways.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Maleic anhydride | EC50: =29mg/L (72h, Desmodesmus | LC50: =75mg/L (96h, Oncorhynchus mykiss) | - | - |

| | | | | |
|---|---|---|---|---|
| | subspicatus) | | | |

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

**Persistence and degradability**

**Persistence and degradability** Readily biodegradable.

**Bioaccumulative potential**

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

**Component Information**

| Chemical name | Partition coefficient |
|---|---|
| Maleic anhydride | -2.36 |

**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** Refer to Waste Management Authority. Dispose of material through a licensed waste contractor.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. 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** 2215
**Proper shipping name** MALEIC ANHYDRIDE
**Transport hazard class(es)** 8
**Packing group** III
**Hazchem code** 2X

**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** 2215
**UN proper shipping name** MALEIC ANHYDRIDE
**Transport hazard class(es)** 8
**Packing group** III

**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** | 2215 |
| **UN proper shipping name** | MALEIC ANHYDRIDE |
| **Transport hazard class(es)** | 8 |
| **Packing group** | III |
| **IMDG EMS Fire** | F-A |
| **IMDG EMS Spill** | S-B |
| **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 |
|---|---|---|
| Maleic anhydride - 108-31-6 | 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 |
|---|---|
| Maleic anhydride - 108-31-6 | 20 MW Threshold category 2b total<br>60000 MWH Threshold category 2b total<br>1 tonne/h Threshold category 2a total<br>25 tonne/yr Threshold category 1a total<br>400 tonne/yr Threshold category 2a total<br>2000 tonne/yr Threshold category 2b total |

**International Inventories**

| | |
|---|---|
| **AIIC** | This material is listed on the Australian Inventory of Industrial Chemicals. |
| **NZIoC** | This material is listed on the New Zealand Inventory of Chemicals. |
| **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

Supplier Material Safety Data Sheet 04/ 2024

| | |
|---|---|
| **Reason(s) For Issue:** | 5 Yearly Revised Primary SDS<br>Change in Hazardous Chemical Classification |
| **Prepared By** | This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and SDS Services). |
| **Revision date:** | 26-Nov-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)
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**