

# SAFETY DATA SHEET



Revision date: 23-Oct-2023

Revision Number 6

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** PHENOL MOLTEN

**Product Code(s)** 000034254901

### Other means of identification

**UN number** 2312

**CAS No.** 108-95-2

**Synonyms** Carboic acid; Hydroxybenzene; Monohydroxybenzene; Monophenol; Oxybenzene; Phenic acid; Phenol alcohol; Phenyl hydrate; Phenyl hydroxide; Phenylic acid; Phenylic alcohol.

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

**Recommended use** Industrial applications.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### Supplier

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

Telephone Number: +64 9 368 2700

Facsimile: +64 9 368 2710

### For further information, please contact

**Contact Point** Product Safety Department

### Emergency telephone number

**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

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

### GHS Classification

#### **SIGNAL WORD**

Danger

**EPA New Zealand HSNO approval code or group standard** Approval Code: HSR006982

Flammable liquids	Category 4
Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 2
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Germ cell mutagenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Chronic aquatic toxicity	Category 3

#### Label elements



#### Hazard statements

H227 - Combustible liquid  
H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H330 - Fatal if inhaled  
H340 - May cause genetic defects  
H361 - Suspected of damaging fertility or the unborn child  
H372 - Causes damage to organs through prolonged or repeated exposure  
H412 - Harmful to aquatic life with long lasting effects

#### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Do not breathe dusts or mists  
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 / protective clothing / eye protection / face protection  
Use personal protective equipment as required  
Avoid release to the environment

#### Precautionary Statements - Response

Get medical advice/attention if you feel unwell  
Specific treatment (see First aid on this SDS)  
If exposed or concerned: Get medical advice/attention  
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  
Remove/Take off immediately all contaminated clothing  
Wash contaminated clothing before reuse  
Immediately call a POISON CENTER or doctor/physician  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
Immediately call a POISON CENTER or doctor/physician  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
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 locked up

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

Store in a well-ventilated place. Keep cool

**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**

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Chemical name	CAS No.	Weight-%
Phenol	108-95-2	>=99%

### 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. Immediate medical attention is required.

Diphoterine® Solution has been shown to significantly reduce the risk of permanent injury. It is essential that the Diphoterine Solution is used as quickly as possible in order to obtain the maximum benefit from its absorbent and neutralising properties. As quickly as possible means within 10 seconds of contact with a chemical. Seek immediate medical attention while treating with Diphoterine Solution.

**Emergency telephone number**

Poisons Information Center, New Zealand: 0800 764 766  
Poisons Information Center, Australia: 13 11 26

**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. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Transport promptly to hospital or medical centre.

**Eye contact**

In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Do NOT use PEG (polyethylene glycol) 400 in the eye. Immediate medical attention is required. Transport promptly to hospital or medical centre. The use of Diphoterine® Solution has been shown to significantly reduce the risk of permanent injury. It is essential that the Diphoterine Solution is used as quickly as possible in order to obtain the maximum benefit from its absorbent and neutralising properties. As quickly as possible means within 10 seconds of contact with a chemical. Seek immediate medical attention while treating with Diphoterine Solution.

**Skin contact**

If on skin, immerse promptly in a deluge shower and simultaneously remove or cut away all contaminated clothing. As soon as possible, wash skin with PEG (polyethylene glycol) 400 and keep dabbing the exposed skin with gauze or cloth soaked PEG 400. Keep replacing the swab or cloth as it becomes contaminated, and continue applying PEG 400 until there is no detectable odour. Flush with running water until advised to stop by the Poisons Information Centre or a doctor. Transport promptly to hospital or medical centre. The use of Diphoterine® Solution has been shown to significantly reduce the risk of permanent injury.

It is essential that the Diphoterine Solution is used as quickly as possible in order to obtain the maximum benefit from its absorbent and neutralising properties. As quickly as possible means within 10 seconds of contact with a chemical. Seek immediate medical attention while treating with Diphoterine Solution.

**Ingestion**

Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Transport promptly to hospital or medical centre.

**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.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Treat symptomatically. Can cause corneal burns. Delayed pulmonary edema may occur. Liver and kidney damage are possible complications.

**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Media****Suitable Extinguishing Media**

Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal protein foam can be used.

**Unsuitable extinguishing media**

High volume water jet.

**Specific hazards arising from the chemical****Specific hazards arising from the chemical**

Corrosive hazard. Wear protective gloves/clothing and eye/face protection. Combustible liquid. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Flash back possible over considerable distance.

**Hazardous combustion products**

Carbon oxides.

**Special protective actions for fire-fighters****Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**Hazchem code**

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures****Personal precautions**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid contact with skin, eyes, and clothing. Do not breathe vapor or mist. Do not touch or walk through spilled material. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Wash thoroughly after handling. Wear protective gloves/protective clothing and eye/face protection.

**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** Determine if phenol is still leaking and if it can safely be prevented from leaking further by closing a valve or shutting off a pump. Since phenol freezes at about 41°C, some leaks may be stopped by freezing the area of the leak. Contain with booms or earthen dikes and allow to solidify - prevent run off into drains and waterways. Collect and seal in properly labelled containers or drums for disposal. Use non-sparking tools. DO NOT spray with water. Phenol may be prone to being blown by wind when solidified – if risk exists, consider careful application of small quantities of warm water (45°C to 55°C) and collect and seal molten product.

**Precautions to prevent secondary hazards**

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on safe handling** Keep out of reach of children. Avoid contact with skin, eyes, and clothing. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Use personal protection equipment. Wash thoroughly after handling. Take precautionary measures against static discharges. 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. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding.

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

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

**Incompatible materials** Strong oxidizing agents, calcium hypochlorite, halogens, halogenated compounds, copper, copper alloys, iron, peroxymonosulfuric acid, sodium nitrate, 1,3-butadiene, boron trifluoride diethyl ether. Hot phenol attacks aluminium, lead, magnesium, zinc.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Limits**

Phenol: WES-TWA 1 ppm; WES-STEL 2 ppm, skin  
Phenol - Biological Exposure Index: 100mg/L total phenol in urine

As published by the New Zealand Workplace Health & Safety Authority.

WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure.

WES - STEL (Workplace Exposure Standard - Short Term Exposure Limits) - The 15 minute average exposure standard. Applies to any 15 minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both short-term and eight-hour, time-weighted average exposures should be determined.

'Skin' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

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.

#### **Eye/face protection**

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

#### **Hand protection**

Elbow-length impervious gloves.

#### **Skin and body protection**

Wear a full-body chemical resistant suit (eg. Microchem 3000) with air-hood meeting the requirements of AS/NZS 1715 and AS/NZS 1716, elbow-length impervious gloves, rubber boots, tight sealing safety goggles.

#### **Respiratory protection**

Wear a full-body chemical resistant suit (eg. Microchem 3000) with air-hood meeting the requirements of AS/NZS 1715 and AS/NZS 1716, elbow-length impervious gloves, rubber boots, tight sealing safety goggles.

#### **Environmental exposure controls**

No information available.

## **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>	Characteristic
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	<6	None known
Melting point / freezing point	40.9°C	None known
Boiling point / boiling range	181.8°C	None known
Flash point	79°C	CC (closed cup)
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	10% (V) (in air)	
Lower flammability or explosive limits	1.36% (V) (in air)	
Vapor pressure	0.047 kPa @20°C	None known
Vapor density	3.2 (air=1)	None known
Relative density	1.06	None known
Water solubility	Miscible in water	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	715°C	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	3.437 mPa.s @50°C	None known

Other information**10. STABILITY AND REACTIVITY**Reactivity

**Reactivity** Explosible with air in a vaporous/gaseous state when heated.

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** Yes.

Possibility of hazardous reactions

**Possibility of hazardous reactions** Phenol will attack some forms of plastic, rubber, coatings and metals. Hot liquid phenol will quickly attack aluminium, magnesium, lead, zinc, metals. Slowly turns pink or red when exposed to air or light. Vapours can form an explosive mixture with air.

Conditions to avoid

**Conditions to avoid** Heat, flames and sparks. UV-radiation/sunlight.

Incompatible materials

**Incompatible materials** Strong oxidizing agents, calcium hypochlorite, halogens, halogenated compounds, copper, copper alloys, iron, peroxymonosulfuric acid, sodium nitrate, 1,3-butadiene, boron trifluoride diethyl ether. Hot phenol attacks aluminium, lead, magnesium, zinc.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Information on likely routes of exposure

<b>Product Information</b>	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:
<b>Inhalation</b>	May cause irritation. Fatal if inhaled.
<b>Eye contact</b>	Causes serious eye damage.
<b>Skin contact</b>	Causes burns. Toxic in contact with skin. May be fatal if absorbed through skin.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Toxic if swallowed. Large exposures may be fatal.
<b>Symptoms</b>	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

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Phenol	= 340 mg/kg ( Rat ) = 317 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 h

See section 16 for terms and abbreviations

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

<b>Skin corrosion/irritation</b>	Causes burns.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	May cause genetic defects.
<b>Carcinogenicity</b>	This material has been classified by the International Agency for Research on Cancer (IARC) as a Group 3 agent. Group 3 - The agent is not classifiable as to its carcinogenicity to humans. Data available is insufficient for an assessment to be made.
<b>Reproductive toxicity</b>	H361 - Suspected of damaging fertility or the unborn child.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	No information available.



## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity** Keep out of waterways. Harmful to aquatic life with long lasting effects.

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

Chemical name	EarthWorm	Avian	Honeybees
Phenol	LC100 = 6900 mg/kg (Eisenia foetida 56 Days soil dry weight)	-	-

Chemical name	Algae/aquatic plants	Fish	Crustacea
Phenol	EC50: =46.42mg/L (96h, Pseudokirchneriella subcapitata) EC50: 0.0188 - 0.1044mg/L (96h, Pseudokirchneriella subcapitata) EC50: 187 - 279mg/L (72h, Desmodesmus subspicatus)	LC50: 11.9 - 50.5mg/L (96h, Pimephales promelas) LC50: 20.5 - 25.6mg/L (96h, Pimephales promelas) LC50: =32mg/L (96h, Pimephales promelas) LC50: 5.449 - 6.789mg/L (96h, Oncorhynchus mykiss) LC50: 7.5 - 14mg/L (96h, Oncorhynchus mykiss) LC50: 4.23 - 7.49mg/L (96h, Oncorhynchus mykiss) LC50: =27.8mg/L (96h, Brachydanio rerio) LC50: =0.00175mg/L (96h, Cyprinus carpio) LC50: 33.9 - 43.3mg/L (96h, Oryzias latipes) LC50: 23.4 - 36.6mg/L (96h, Oryzias latipes) LC50: 5.0 - 12.0mg/L (96h, Oncorhynchus mykiss) LC50: =13.5mg/L (96h, Lepomis macrochirus) LC50: 11.9 - 25.3mg/L (96h, Lepomis macrochirus) LC50: =11.5mg/L (96h, Lepomis macrochirus) LC50: 34.09 - 47.64mg/L (96h, Poecilia reticulata) LC50: =31mg/L (96h, Poecilia reticulata)	EC50: 4.24 - 10.7mg/L (48h, Daphnia magna) EC50: 10.2 - 15.5mg/L (48h, Daphnia magna)

### Persistence and degradability

**Persistence and degradability** Readily biodegradable.

### Bioaccumulative potential

**Bioaccumulation** No information available.

### Mobility

**Mobility in soil** No information available.

### Other adverse effects

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****Waste from residues/unused products**

Dispose of product in packaging/container in a way that is consistent with the Hazardous Substances (Disposal) Notice 2017 and the Act, and Hazardous Substances (Amendments and Revocations) Notice 2020. Treat the chemical using a method that changes the characteristics or composition of the chemical so that the chemical is no longer a hazardous chemical; or export the chemical from New Zealand as waste. Class 6 and 8 chemicals – may be discharged into the environment if a tolerable exposure limit has been set for the substance (or a component of that chemical); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the tolerable exposure limit. If there is not tolerable exposure limit for the substance, then it may only be discharged into the environment if the substance is very rapidly converted to substances that are not hazardous substances.

**Contaminated packaging**

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous chemical (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the chemical to be classified as hazardous (class 6, 8, or 9 chemical). 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.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

UN number	2312
Proper shipping name	PHENOL, MOLTEN
Hazard class	6.1
Packing group	II
Hazchem code	*3X

**IATA**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS. TRANSPORT PROHIBITED under the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air in Passenger and Cargo Aircraft, and Cargo Aircraft Only.

UN number	2312
UN proper shipping name	PHENOL, MOLTEN
Transport hazard class(es)	6.1
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	2312
UN proper shipping name	PHENOL, MOLTEN
Transport hazard class(es)	6.1
Packing group	II
IMDG EMS Fire	F-A
IMDG EMS Spill	S-A

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****New Zealand**

**National regulations**

The 'Hazardous Substances (Tracking) Regulations' are applicable to this chemical.

**EPA New Zealand HSNO approval code or group standard** Approval Code: HSR006982

**International Inventories**

<b>NZIoC</b>	This material is listed on the New Zealand Inventory of Chemicals.
<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AIIC</b>	This material is listed on the Australian Inventory of Industrial Chemicals.

**Legend:**

**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

**AIIC** - Australian Inventory of Industrial Chemicals

**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

**16. OTHER INFORMATION**

Supplier Safety Data Sheet 03/ 2020

**Prepared By** This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Issuing Date:** 23-Oct-2023

**Reason(s) For Issue:** Change in First Aid Measures

**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 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)  
EPA (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)  
Japan GHS Classification  
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)  
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  
RTECS (Registry of Toxic Effects of Chemical Substances)  
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**