

# SAFETY DATA SHEET



Revision date: 14-Sep-2023

Revision Number 7

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** MAGNESIUM CHLORIDE HEXAHYDRATE  
**Product Code(s)** 000031055601

### Other means of identification

**CAS No.** 7791-18-6  
**Synonyms** Mangogene

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

**Recommended use** General chemical.  
**Uses advised against** No information available

### 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.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Not classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS)

### Label elements

#### **Hazard statements**

#### **Other hazards which do not result in classification**

**General Hazards****Poisons Schedule (SUSMP)** None allocated**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

| Chemical name                  | CAS No.   | Weight-% |
|--------------------------------|-----------|----------|
| Magnesium chloride hexahydrate | 7791-18-6 | 100      |

**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 and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.   |
| <b>Eye contact</b>    | In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.                        |
| <b>Skin contact</b>   | Wash skin with soap and water. Get medical attention if irritation develops and persists.  |
| <b>Ingestion</b>      | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur. |

**Most important symptoms and effects, both acute and delayed****Symptoms** May cause physical irritation to the eyes.**Indication of any immediate medical attention and special treatment needed****Note to physicians** Treat symptomatically. Intravenous administration of calcium gluconate will partially reverse the effects of acute magnesium toxicity. Ventricular support with calcium chloride infusion and mannitol forced diuresis has also been successful.**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Media****Suitable Extinguishing Media** Use extinguishing agent suitable for type of surrounding fire.**Unsuitable extinguishing media** No information available.**Specific hazards arising from the chemical****Specific hazards arising from the chemical** Non-combustible.**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.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes, and clothing. Avoid breathing dust / fume / gas / mist / vapours / spray. Avoid generation of dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not touch or walk through spilled material. Use personal protective equipment as required. Wash thoroughly after handling.

**For emergency responders** Clear area of all unprotected personnel. Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Refer to protective measures listed in Sections 7 and 8.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Do not touch or walk through spilled material.

**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.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes, and clothing. Avoid breathing dust or spray mist. Ensure adequate ventilation. Use personal protection equipment. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**General hygiene considerations** Avoid contact with skin, eyes, and clothing. Wear suitable gloves and eye/face protection. Wash hands and face before breaks and immediately after handling the product. Regular cleaning of equipment, work area and clothing is recommended.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Keep container closed when not in use.

**Incompatible materials** Furan-2-peroxycarboxylic acid. Strong oxidizing agents.

**Poisons Schedule (SUSMP)** None allocated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

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

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

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.

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 adequate ventilation, especially in confined areas. 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, SAFETY GLASSES, GLOVES, DUST MASK.



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

Glasses.

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

Wear suitable protective clothing. Boots. Overalls.

#### **Hand protection**

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.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### Information on basic physical and chemical properties

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical state</b> | Solid                    |
| <b>Appearance</b>     | Flakes or Crystals       |
| <b>Color</b>          | Colourless               |
| <b>Odor</b>           | Odourless                |
| <b>Odor threshold</b> | No information available |

#### Property pH

Values  
7 (5% in water)

Remarks • Method  
None known

|   |                   |            |
|---|-------------------|------------|
| <b>pH (as aqueous solution)</b>               | No data available | None known |
| <b>Melting point / freezing point</b>         | 118°C             | None known |
| <b>Boiling point / boiling range</b>          | No data available | None known |
| <b>Flash point</b>                            | Not applicable    | 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> | No data available |            |
| <b>Lower flammability or explosive limits</b> | No data available |            |
| <b>Vapor pressure</b>                         | No data available | None known |
| <b>Vapor density</b>                          | No data available | None known |
| <b>Relative density</b>                       | 1.57              | None known |
| <b>Water solubility</b>                       | 1670 g/L @ 20 °C  | None known |
| <b>Solubility(ies)</b>                        | No data available | None known |
| <b>Partition coefficient</b>                  | No data available | None known |
| <b>Autoignition temperature</b>               | No data available | 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**

**Molecular formula** Cl<sub>2</sub>Mg.6H<sub>2</sub>O

**10. STABILITY AND REACTIVITY****Reactivity**

**Reactivity** Addition of magnesium chloride to furan-2-peroxycarboxylic acid will cause the acid to explode. Reacts with strong oxidising agents. Hygroscopic: absorbs moisture or water from surrounding air.

**Chemical stability**

**Stability** Stable under normal conditions.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** When heated to temperatures above 300°C, it emits toxic fumes of chlorine gas.

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

**Conditions to avoid**

**Conditions to avoid** Heat. Moisture. Dust formation. Avoid contact with water.

**Incompatible materials**

**Incompatible materials** Furan-2-peroxycarboxylic acid. Strong oxidizing agents.

**Hazardous decomposition products**

**Hazardous decomposition products** Hydrochloric acid. Chlorine. Oxides of magnesium.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

### 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:

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | May cause irritation.   |
| <b>Eye contact</b>  | May cause irritation. May cause physical irritation to the eyes.    |
| <b>Skin contact</b> | May cause irritation.   |
| <b>Ingestion</b>    | May cause gastrointestinal discomfort if consumed in large amounts. |

**Symptoms** May cause physical irritation to the eyes.

### Numerical measures of toxicity - Product Information

| Chemical name                  | Oral LD50            | Dermal LD50 | Inhalation LC50 |
|--------------------------------|----------------------|-------------|-----------------|
| Magnesium chloride hexahydrate | = 8100 mg/kg ( Rat ) | -           | -               |

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>         | No information available.  |
| <b>Serious eye damage/eye irritation</b> | No information available.  |
| <b>Respiratory or skin sensitization</b> | No information available.  |
| <b>Germ cell mutagenicity</b>            | No information available.  |
| <b>Carcinogenicity</b>                   | Not listed as carcinogenic according to IARC.<br>(IARC - International Agency for Research on Cancer). |
| <b>Reproductive toxicity</b>             | No information available.  |
| <b>STOT - single exposure</b>            | No information available.  |
| <b>STOT - repeated exposure</b>          | No information available.  |
| <b>Aspiration hazard</b>                 | No information available.  |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity** Avoid contaminating waterways.

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

**Bioaccumulation** No information available.

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects****13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

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

**14. TRANSPORT INFORMATION****ADG**

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

**IATA**

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.

**IMDG**

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

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

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Not classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS)

See section 8 for national exposure control parameters

**Poisons Schedule (SUSMP)** None allocated

### 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.

#### **Legend:**

**AIIC- Australian Inventory of Industrial Chemicals**  
**NZIoC - New Zealand Inventory of 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 09/ 2023

**Reason(s) For Issue:** 5 Yearly Revised Primary SDS

**Issuing Date:** 14-Sep-2023

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

#### **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**

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**