

## Safety Data Sheet **MAGNESIUM SULFATE Heptahydrate**

SDS no. 6ZYZ7L1C • Version 1.0 • Date of issue: 2024-06-11

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### SECTION 1: Identification

#### GHS Product identifier

Product name MAGNESIUM SULFATE Heptahydrate

#### Other means of identification

MAGNESIUM SULFATE Heptahydrate LR ML048  
MAGNESIUM SULFATE Heptahydrate AR MA048  
MAGNESIUM SULFATE Heptahydrate BP MP048

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

Fire proofing, textiles, mineral waters, catalyst carrier, ceramics, fertilizers, paper, cosmetic lotions, dietary supplement, antacid, laxative, analytical reagent and laboratory reagent.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com.au](http://www.chemsupply.com.au)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

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### SECTION 2: Hazard identification

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

Not a hazardous substance or mixture.

#### GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

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

Not a hazardous substance or mixture.

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### SECTION 3: Composition/information on ingredients

#### Mixtures

Molecular weight: 246.48

#### Components

Component	CAS no.	Concentration
Magnesium sulfate Heptahydrate (EC no.: 231-298-2)	10034-99-8	100 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		

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### SECTION 4: First-aid measures

#### Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	Remove victim from exposure to fresh air. If any discomfort persists or rash develops, seek medical attention.
In case of skin contact	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
In case of eye contact	Irrigate with copious quantity of water for 15 minutes. Seek medical assistance if symptoms persist.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

#### Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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### SECTION 5: Fire-fighting measures

#### Suitable extinguishing media

Small fire: Use dry chemical, CO<sub>2</sub>, water spray or foam.

Large fire: Use water spray, fog or foam.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out.

#### Specific hazards arising from the chemical

Hazards from Combustion Products: May emit toxic fumes in fire (sulfur oxides).

Material does not burn. Fire or heat may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Runoff may pollute waterways.

#### Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

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## **SECTION 6: Accidental release measures**

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

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

### **Methods and materials for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal.

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## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Avoid prolonged or repeated contact with skin, eyes and clothing . Avoid substance contact and generation and inhalation of dust. Wash hands and face thoroughly after working with material. Use with adequate ventilation.

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

Keep containers securely sealed and protected against physical damage. Store in a cool,dry place. Store in well ventilated area.

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## **SECTION 8: Exposure controls/personal protection**

### **Appropriate engineering controls**

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

### **Individual protection measures, such as personal protective equipment (PPE)**

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

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

#### **Skin protection**

Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.  
Recommendation: Excellent: Nitrile, Neoprene, PVC. Poor: NR latex.

#### **Body protection**

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

#### **Respiratory protection**

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

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## **SECTION 9: Physical and chemical properties**

### **Basic physical and chemical properties**

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Physical state

Solid

Appearance

Colourless; transparent crystals or white powder.

Color

No data available.

Odor

Odourless.

Odor threshold

No data available.

Melting point/freezing point

Heptahydrate: Loses 6H<sub>2</sub>O @ 150 °C; Loses all water @ 250°C; <br>Dried: Decomposes: 1124 °C.

Boiling point or initial boiling point and boiling range

No data available.

Flammability

No data available.

Lower and upper explosion limit/flammability limit

No data available.

Flash point

No data available.

Explosive properties

No data available.

Auto-ignition temperature

No data available.

Decomposition temperature

No data available.

Oxidizing properties

No data available.

pH

Heptahydrate: pH 5.0 - 8.0 (50 g/L, H<sub>2</sub>O, 20 °C).

Kinematic viscosity

No data available.

Solubility

Solubility in Water: Soluble (246.48 g/L @ 20 °C). Solubility in Organic Solvents: Soluble in glycerol. Sparingly soluble in alcohol.

Partition coefficient n-octanol/water (log value)

No data available.

Vapor pressure

Heptahydrate: < 0.133 hPa @ 20 °C

Evaporation rate

No data available.

Density and/or relative density

Specific Gravity: Heptahydrate: 1.67 g/cm<sup>3</sup>.

Relative vapor density

No data available.

Particle characteristics

No data available.

#### Supplemental information regarding physical hazard classes

No data available.

#### Further safety characteristics (supplemental)

No data available.

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## SECTION 10: Stability and reactivity

### Reactivity

Stable under normal conditions of storage and handling.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

### Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

### Incompatible materials

Strong oxidising agents, ethoxy ethyl alcohols, arsenates, phosphates, tartrates, lead, barium, strontium and calcium.

### Hazardous decomposition products

Sulfur oxides and magnesium oxides.

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## **SECTION 11: Toxicological information**

### **Information on toxicological effects**

#### **Acute toxicity**

Acute Toxicity - Oral: LDLo (mouse): 5000 mg/kg (anhydrous)

Ingestion: Magnesium salts are slowly absorbed. Symptoms may include abdominal pain, vomiting, diarrhea, flushing of the skin, thirst and hypotension. If elimination is blocked by bowel blockage or other reasons, CNS depression, lack of reflexes, hypocalcemia (deficiency of calcium in the blood) may occur.

Inhalation: Dust may be slightly irritating. Symptoms may include sore throat or coughing.

#### **Skin corrosion/irritation**

No adverse effects expected but dust may cause minor skin irritation. May be harmful if absorbed through the skin.

#### **Serious eye damage/irritation**

No adverse effects expected but dust may cause mechanical irritation.

#### **Respiratory or skin sensitization**

No data available.

#### **Germ cell mutagenicity**

No data available.

#### **Carcinogenicity**

No data available.

#### **Reproductive toxicity**

No data available.

#### **Summary of evaluation of the CMR properties**

No data available.

#### **Specific target organ toxicity (STOT) - single exposure**

No data available.

#### **Specific target organ toxicity (STOT) - repeated exposure**

No data available.

#### **Aspiration hazard**

No data available.

#### **Additional information**

Chronic Effects: In general, this material is normally excreted rapidly from the body and only a small proportion of magnesium salts ingested are absorbed by the bloodstream. Cases of poisoning have arisen where these materials have been used medicinally and the patient has a damaged alimentary tract or impaired renal function, resulting in the rapid absorption of magnesium ions into the bloodstream. The central nervous system and gastrointestinal system are targeted.

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## **SECTION 12: Ecological information**

**Toxicity**

No data available.

**Persistence and degradability**

No data available.

**Bioaccumulative potential**

No data available.

**Mobility in soil**

No data available.

**Results of PBT and vPvB assessment**

No data available.

**Endocrine disrupting properties**

No data available.

**Other adverse effects**

No data available.

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**SECTION 13: Disposal considerations**

**Disposal methods**

**Product disposal**

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

**Other disposal recommendations**

Do not discharge this material into waterways, drains and sewers.

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**SECTION 14: Transport information**

**ADG (Road and Rail)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**SECTION 15: Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**Australia SUSMP**

Poison Schedule: NS

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**SECTION 16: Other information**

**Further information/disclaimer**

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](http://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)