

SDS no. 9RV7NBFF • Version 1.0 • Date of issue: 2020-07-09

GHS Product identifier

Product name	MAGNESIUM NITRATE
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Pyrotechnics, chemical and pharmaceutical production and analysis, concentration of nitric acid and laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
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SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

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

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Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 256.41

Components

Component	Concentration
Magnesium nitrate hexahydrate (CAS no.: 13446-18-9)	100 % (weight)
CLASSIFICATIONS: Oxidizing solids, Cat. 3. HAZARDS: H272 - May intensify fire; oxidizer.	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact	Wash off with soap and plenty of water.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention if symptoms occur.

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

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

Specific hazards arising from the chemical

Fire may produce irritating, poisonous gases of nitrogen and magnesium oxides.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. Keep container closed when not in use. Never return spills in original containers for re-use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

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

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Colourless or white crystals.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	89 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.

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Lower and upper explosion limit/flammability limit
Flash point
Explosive properties
Auto-ignition temperature
Decomposition temperature
Oxidizing properties
pH
Kinematic viscosity
Solubility

No data available.
No data available.
No data available.
No data available.
330 °C
No data available.
5.0-8.2 (50 g/l, H₂O, 20 °C)
No data available.
Solubility in Water: Very soluble 420g/L @ 20°C. Solubility in Organic Solvents: Freely soluble in alcohol.
No data available.
No data available.
No data available.
1.46 @ 20 °C
No data available.

Partition coefficient n-octanol/water (log value)
Vapor pressure
Evaporation rate
Density and/or relative density
Relative vapor density

Particle characteristics

No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Loses crystalline water at >90 °C.

SECTION 10: Stability and reactivity

Reactivity

None under normal use conditions.

Chemical stability

Will release waters of crystallisation upon heating.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Sensitive to heating and moisture.

Incompatible materials

Reducing agents, acids, organic materials, metal powders, dimethylformamide, alcohols, amines, ethers, ketones, carboxylic acids and combustible materials.

Hazardous decomposition products

May liberate toxic metal fumes in fire including oxides of magnesium and nitrogen.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD₅₀ (rat): 5440 mg/kg (IUCLID)

Ingestion: Small doses of nitrates may cause weakness, nausea, vomiting, general depression, headache and mental impairment. Larger doses may cause dizziness, abdominal cramps, vomiting, bloody diarrhea, tiredness, convulsions and collapse. Some magnesium salts have produced muscle weakness, cardiac arrhythmias, respiratory effects and changes in blood chemistry following ingestion.

Inhalation: May cause respiratory tract irritation. Inhalation of magnesium compounds may cause metal fume fever.

Skin corrosion/irritation

May cause irritation to the skin.

Serious eye damage/irritation

Irritating to eyes.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

No data available.

Additional information

Chronic Effects: Repeated small oral doses of nitrates may cause weakness, depression, headache, and mental impairment. Chronic exposure may affect ability of blood to carry oxygen, causing the lips and skin to turn blue.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

Methods for the determination of biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Unlikely.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

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No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

Endangers drinking-water supplies if allowed to enter soil or water.

The following applies to nitrates in general: may contribute to the eutrophication of water supplies.

Do not allow to enter waters, waste water, or soil!

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.

Sewage disposal

Unlikely.

Other disposal recommendations

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

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods - SP332 Magnesium nitrate hexahydrate is not subject to this Code

IMDG

Not dangerous goods - SP332 Magnesium nitrate hexahydrate is not subject to this Code

IATA

Not dangerous goods - A155(332) Magnesium nitrate hexahydrate is not subject to this Code

SECTION 15: Regulatory information

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

Australia SUSMP

Poison Schedule: NS

Canadian Domestic Substances List (DSL)

Chemical name: Nitric acid, magnesium salt

CAS: 10377-60-3

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

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