Magnesium Nitrate Hexahydrate

SECTION 1. IDENTIFICATION

Product Identifier	Magnesium Nitrate Hexahydrate
Other Means of Identification	Magnesium dinitrate hexahydrate, Magnesium(II) nitrate (1:2) hexahydrate
Product Code(s)	MA3010
Product Family	Inorganic Solid
Recommended Use	Laboratory and industrial use.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	CANUTEC CANADA, 613-996-6666, 24 Hours
SDS No.	1150

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Oxidizing solid - Category 3; Skin irritation - Category 2; Eye irritation - Category 2

Label Elements

Signal Word:
Warning

Hazard Statement(s):
May intensify fire; oxidizer.
Causes serious eye irritation.
Causes skin irritation.

Precautionary Statement(s):
Prevention:
Do not get in eyes, on skin, or on clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.

If skin irritation occurs: Get medical advice/attention.

Storage:

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

Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Magnesium(II) nitrate (1:2), hexahydrate	13446-18-9	> 99	Magnesium dinitrate hexahydrate, Magnesium(II) nitrate (1:2) hexahydrate	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. If skin irritation occurs, get medical advice or attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately call a Poison Centre or doctor.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Identification) and Section 11 (Toxicological Information) of this SDS.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice, consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific Hazards Arising from the Product

Mild oxidizer. May intensify fire. Heating increases the release of toxic vapour.
In a fire, the following hazardous materials may be generated: corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters

Oxidizer. Prevent contact with flammable and combustible materials. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Move containers from fire area if it can be done without risk. Otherwise, use water in flooding quantities as a spray or fog to keep fire-exposed containers cool and absorb heat. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.
Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Dike spilled product to prevent runoff. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Flush spill area. Dike and recover contaminated water for appropriate disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area.

Conditions for Safe Storage

Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Magnesium(II) nitrate (1:2), hexahydrate	Not established		Not established			

TLV Comments:
NOTE: In many jurisdictions, exposure limits are similar to the ACGIH TLVs. Since a TLV has not been established for this substance, appropriate government agencies in each jurisdiction should be consulted to determine which regulations apply.

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety

shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: nitrile rubber.

Respiratory Protection

Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless - white crystals.
Odour	Odourless
Odour Threshold	Not applicable
pH	Not available
Melting Point/Freezing Point	89 - 95 ºC (192 - 203 ºF) (melting); 89 - 95 ºC (192 - 203 ºF) (freezing)
Initial Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Will not burn.
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	~ 1.64 at 25 ºC
Solubility	Very soluble in water; Highly soluble in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	-0.61 (estimated)
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not applicable (dynamic)

Other Information

Physical State	Solid
Molecular Weight	256.41

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Mild oxidizer. May cause or intensify fire.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Open flames, sparks, static discharge, heat and other ignition sources.

Incompatible Materials

Strong acids (e.g. hydrochloric acid), reducing agents (e.g. hydroquinone), metals (e.g. aluminum), esters (e.g. amyl acetate).

Hazardous Decomposition Products

Corrosive, oxidizing nitrogen oxides; oxygen (a strong oxidizer). magnesium oxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Magnesium(II) nitrate (1:2), hexahydrate	Not available	5440 mg/kg (rat)	Not available

Skin Corrosion/Irritation

Causes skin irritation.

Serious Eye Damage/Irritation

May cause severe irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Ingestion

May cause irritation of the mouth, throat and stomach. Ingestion is not a typical route of occupational exposure.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Magnesium(II) nitrate (1:2), hexahydrate	Not Listed	Not designated	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Not mutagenic.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Bury in a licensed landfill according to federal, provincial/state, and local regulations.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
IATA (Air)	UN1474	MAGNESIUM NITRATE	5.1	III
IMO (Marine)	UN1474	MAGNESIUM NITRATE	5.1	III
Canadian TDG	UN1474	MAGNESIUM NITRATE	5.1	III

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Not listed on the DSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

Not listed on the TSCA Inventory.

SECTION 16. OTHER INFORMATION

SDS Prepared By	Alphachem Limited
Phone No.	(905)-821-2995
Date of Preparation	October 20, 2017
Date of Last Revision	October 20, 2017
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).
Disclaimer	This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.