



**SAFETY DATA SHEET**  
According to 29 CFR 1910.1200

**NITRASOL MAGNESIUM**

Date of issue: December 28, 2009 Revision date: September 01, 2023 Version: 4

**SECTION 1.- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

Product form Substance  
Substance name Magnesium nitrate hexahydrate.  
CAS No. 13446-18-9  
Formula  $Mg(NO_3)_2 \cdot 6H_2O$   
Synonyms Not available.

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/mixture Used as a granular fertilizer mineral containing magnesium and nitrogen and as a chemical intermediate.

**1.3 Details of the supplier of the safety data sheet**

Pima Chemicals & Fertilizers, LLC 1370 Nogales, Az. Tel. 011 52 (662) 182-0559 rgutierrez@qpima.com	www.qpima.com	Química Pima, S.A. de C.V. Del Cobre 20, Parque Industrial Hermosillo. Hermosillo, Sonora, México. C.P. 83297 Tel. 011 (662) 251-0010 ventas@qpima.com
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**1.4 Emergency telephone number**

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

**SECTION 2.- HAZARD IDENTIFICATION**

**2.1. GHS-US classification**

Skin corrosion/irritation 3 H316 Eye damage/irritation 2A H319

**2.2. Label elements**

**GHS-US labeling**

**Hazard pictograms (GHS-US)**



Signal word (GHS-US): Warning

Hazard statement (GHS-US): H316 Causes mild skin irritation. H319 Causes serious eye irritation.

Precautionary statements (GHS-US):  
P264 Wash exposed skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403 Store in a well-ventilated place. Store away from incompatible materials.



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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 2.3. Other hazards

None to our knowledge.

### 2.4 Unknown acute toxicity (GHS-US)

Not applicable.

## SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

### 3.1 Substance

Name	Product identifier	%	GHS-US classification
Magnesium Nitrate	(CAS No.) 13446-18-9	> 98.00	Skin Irrit. 3, H316 Eye Irrit. 2A, H319

### 3.2 Mixture

Not applicable

## SECTION 4.- FIRST AID MEASURE

### 4.1. Description of first aid measure

<b>First-aid measures general</b>	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.
<b>First-aid measures after eye contact</b>	Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
<b>First-aid measures after skin contact</b>	Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
<b>First-aid measures after inhalation</b>	Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Get medical attention.
<b>First-aid measures after ingestion</b>	If Magnesium Nitrate is swallowed, if conscious, wash mouth out with water; give plenty of water (1-2 glasses). Immediately call a physician. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>Symptoms/injuries after inhalation</b>	No significant effects or critical hazards.
<b>Symptoms/injuries after skin contact</b>	No significant effects or critical hazards.
<b>Symptoms/injuries after eye contact</b>	Irritation of the eye tissue.
<b>Symptoms/injuries after ingestion</b>	Irritating to mouth, throat, and stomach.
<b>Chronic symptoms</b>	No significant effects or critical hazards.

### 4.3. Indications of any immediate medical attention and special treatment needed

No additional information is available. In the case of abnormal symptoms contact the medicine doctor.

## SECTION 5.- FIREFIGHTING MEASURES

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Use water only! Contact professional firefighters immediately. For large fires flood fire with water from a distance.
<b>Unsuitable extinguishing media</b>	For small fires, do NOT use chemicals, carbon dioxide, halon, or foams.



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### 5.2. Special hazard arising from the substance or mixture

<b>Fire hazard</b>	In case of fire, the following can be released: Nitrogen oxides (NOx). Reduce dust and vapor with water spray.
<b>Explosion hazard</b>	Explosive mixture: Not applicable-non-explosive. High temperatures may cause pressure build-up in closed containers.
<b>Reactivity</b>	During the thermal decomposition, harmful compounds. Brown fumes containing toxic nitrogen oxides.

### 5.3. Advice for firefighters

<b>Precautionary measures fire</b>	As in any fire, wear a self-contained breathing apparatus in pressure demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Clothing resistant to high temperatures. Independent self-contained breathing apparatus.
<b>Firefighting instructions</b>	Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray.
<b>Protection during firefighting</b>	Heat/fire exposure: compressed air/oxygen apparatus.

## SECTION 6.- ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment, and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.
Emergency procedures	Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
Measures in case of dust release	In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

#### 6.1.2. For emergency responders

Protective equipment	Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection"
Emergency procedures	Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Do not allow product to spread into the environment. Do not discharge into drains or rivers

### 6.3. Methods and material for containment and cleaning up.

<b>Method for containment</b>	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Collect up the product and place it in a sealable container. Suitably labeled. Transfer carefully to container. Then take the spare containers to an area reserved for subsequent recycling or disposal. Do not put the cast down material back into the original container, for re-use. Avoid prolonged or repeated exposure.
<b>Methods for cleaning up</b>	Prevent dispersion by covering it with dry sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Spill must not return to its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
<b>Other information</b>	Dispose of materials or solid residues at an authorized site.



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**6.4 Reference to other sections**

For further information refer to section 8: Exposure-controls/personal protection.

**SECTION 7.- HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

**Precautions for safe handling**

Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Remove contaminated clothing and wash before reuse. Avoid contact with clothing and other combustible materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

**Hygiene measures**

Do not drink, eat, or smoke in the workplace. Always wash your hands after handling the product.  
Do not eat, drink, or smoke when using this product.

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

Store away from incompatible materials such as reducing agents, flammable agents, and strong acids. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources, or open flame. Store in cool, dry conditions in well-sealed containers. Store with like hazards

**7.3 Specific end use(s)** No additional information available.

**SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Magnesium Nitrate 13446-18-9	Not available	Not available	Not available

**8.2. Exposure controls**

**Appropriate engineering controls**

Ensure good ventilation of the workstation. Extraction to remove dust at its source. Emergency eye wash fountains and safety showers should be available near any potential exposure.

**Material for protective clothing**

Not available.

**Hand protection**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

**Eye protection**

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses or goggles are appropriate eye protection.

**Skin and body protection**

Protective clothing.

**Respiratory protection**

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate to use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary, use NIOSH approved breathing equipment.

**Environmental exposure controls**

Avoid release to the environment.



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**SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<b>Physical state:</b>	Solid.	<b>Appearance:</b>	Crystalline solid.
<b>Odor:</b>	Odorless.	<b>Color:</b>	White.
<b>Molecular mass</b>			No data available.
<b>Odor threshold</b>			No data available.
<b>pH</b>			7
<b>pH solution</b>			5%
<b>Relative evaporation rate (butyl acetate=1)</b>			No data available.
<b>Melting point</b>			89°C
<b>Freezing point</b>			No data available.
<b>Boiling point</b>			330°C (626°F)
<b>Flashpoint</b>			93.3°C (199.9°F)
<b>Self-ignition temperature</b>			No data available.
<b>Decomposition temperature</b>			93.3°C (199.9°F)
<b>Flammability (solid, gas)</b>			Not flammable.
<b>Vapor pressure</b>			< 0.00001 Pa
<b>Relative vapor density at 20°C</b>			At 20°C
<b>Relative density</b>			1.46 g/cm <sup>3</sup>
<b>Density/specific gravity</b>			No data available.
<b>Solubility</b>			Soluble in water. Water: 225 g/100 g.
<b>Log Pow</b>			Not applicable (inorganic substance).
<b>Log Kow</b>			No data available.
<b>Viscosity, kinematic</b>			No data available.
<b>Viscosity, dynamic</b>			No data available.
<b>Explosive properties</b>			Not explosive.
<b>Oxidizing properties</b>			May intensify fire; oxidizer.
<b>Explosive limits</b>			No data available.

**9.2 Other information**

No additional information available.

**SECTION 10.- STABILITY AND REACTIVITY**

<b>10.1 Reactivity</b>	Reactive with strong reducing agents.
<b>10.2 Chemical stability</b>	Under normal storage and use, the substance is chemically stable.
<b>10.3 Possibility of hazardous reactions</b>	None under normal conditions of use.



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- 10.4 Conditions to avoid** Avoid contact with strong heat sources such as solar radiation and flames.
- 10.5 Incompatible materials** Strong reducing agents.
- 10.6 Hazardous decomposition products** Intensive heated to temperatures > 330°C followed by decomposition with emission of toxic gases (nitrogen oxides).

**SECTION 11.-TOXICOLOGICAL INFORMATION**

**11. 1. Information on toxicological effects**

Likely routes of exposure Skin and eye contact; inhalation; and ingestion.  
Acute toxicity Not classified.

Name	LD <sub>50</sub> oral	LD <sub>50</sub> dermal	LC <sub>50</sub> inhalation
Magnesium Nitrate	> 2000 mg/kg (rat)	> 5000 mg/kg (rat)	-

Skin corrosion/irritation Skin-rabbit-Mild skin irritation-24 h  
 Serious eye damage/irritation Eyes-rabbit-Mild eye irritation-24 h  
 Respiratory or skin sensitization No sensitizing effects known.  
 Germ cell mutagenicity No data available.  
 Carcinogenicity IARC: 2A-Group 2A: Probably carcinogenic to humans(Magnesium nitrate hexahydrate)  
 Reproductive toxicity No data available.  
 Specific target toxicity (single exposure) No data available.  
 Specific target toxicity (repeat exposure) No data available.  
 Aspiration hazard No data available.  
 Potential health effects  
     Inhalation May be harmful if inhaled. May cause respiratory tract irritation.  
     Ingestion May be harmful if swallowed.  
     Skin May be harmful if absorbed through the skin. May cause skin irritation.  
     Eyes May cause eye irritation.

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

Ecology - General There is no direct test for magnesium nitrate. The data were based on studies of similar substances.

LC50 for freshwater fish:	1378 mg / L
EC50/LC50 for fresh water invertebrates:	490 mg / L
EC50/LC50 for freshwater algae:	> 1700 mg/ L
EC10/LC10 or freshwater algae NOEC	1700 mg / L
EC50/LC50 aquatic microorganisms:	> 1000 mg/ L
EC10/LC10 or NOEC aquatic organisms:	180 mg / L
PNEC aqua (water freshwater):	0.45 mg / L
PNEC aqua (sea water):	0.045 mg / L
PNEC (broken version):	4.5 mg / L



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**12.2 Persistence and degradability**

Decomposition under anaerobic conditions in wastewater treatment plants.

**12.3 Bioaccumulative potential**

The substance has a low potential for biodegradation.

**12.4 Mobility in soil**

Freely soluble in water. Very quickly penetrates the groundwater.

**12.5 Other adverse effects**

Other information                      None.

**SECTION 13.- DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Waste disposal recommendations	Waste Removal: Apply as fertilizer or transfer for disposal. Disposing of the packaging: Empty containers contain residue of material on the inner surfaces. Thoroughly empty containers to be transmitted to authorized waste collector Empty packaging completely. Prevent pollution of surface waters. Contaminated packaging: EC codes: 15 01 02 plastic packaging; Prohibition: Do not dispose of untreated packing with ordinary industrial wastes.
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**SECTION 14.- TRANSPORT INFORMATION**

<b>14.1. UN number</b>	Not applicable. In accordance with DOT not regulated for transport.
<b>14.2. UN proper shipping name</b>	Not applicable.
<b>14.3. Additional information</b>	
Other information	No supplementary information available.
Overland transport	No additional information available.
Transport by sea	No additional information available.
Air transport	No additional information available.

**SECTION 15.- REGULATORY INFORMATION**

**15.1 US Federal regulations**

<b>Magnesium Nitrate (13446-18-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 313 - Emission Reporting	None of the ingredients is listed.

**15.2 International regulations**

**CANADA**

<b>Magnesium Nitrate (13446-18-9)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.

**EU-Regulations**

<b>Magnesium Nitrate (13446-18-9)</b>
No additional information available.



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**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

No additional information available.

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

No additional information available.

**15.2.2. National regulations**

<b>Magnesium Nitrate (13446-18-9)</b>
No additional information available.

**15.3 US State regulations**

No additional information available.

**SECTION 16.- OTHER INFORMATION**

<b>NFPA</b>	NFPA health hazard	1	NFPA fire hazard	0	NFPA instability hazard	0	NFPA Special hazard	-
<b>HMIS III</b>	Health	1	Flammability	0	Physical	0	Personal Protection	E

**E** Safety glasses, gloves, and dust respirator.



**Other information:** None.

**Made for:** Quimica Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

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September 01, 23. Version 4. Syntax and spelling improvements and corrections were made.

*IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and applied to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Quimica Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.*

End of Safety Data Sheet