

## MAGNESIUM NITRATE

## Material Safety Data Sheet

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Mallinckrodt Chemical, Inc.

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Emergency Telephone Number  
314-539-1600

Effective Date: 11-01-94 Supersedes 08-08-85

## PRODUCT IDENTIFICATION:

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Synonyms: Nitric acid magnesium salt hexahydrate

Formula CAS No.: 10377-60-3

Molecular Weight: 256.41

Hazardous Ingredients: Magnesium nitrate Chemical Formula:  $Mg(NO_3)_2 \cdot 6H_2O$ 

## PRECAUTIONARY MEASURES

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DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

Keep from contact with clothing and other combustible materials.  
Store in a tightly closed container.  
Remove and wash contaminated clothing promptly.  
Avoid contact with eyes, skin and clothing.  
Avoid breathing dust.  
Use with adequate ventilation.  
Wash thoroughly after handling.

## EMERGENCY FIRST AID

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If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases call a physician.  
SEE SECTION 5.

## Physical Data

## SECTION 1

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Appearance: White hygroscopic crystals.

Odor: Odorless.

Solubility: 125g/100ml water

Boiling Point: Decomposes @ 330 C (626 F). Vapor Density (Air=1): No information found.

Melting Point: 89 C (192 F). Vapor Pressure (mm Hg): No information found.

Density: 1.46 Evaporation Rate: No information found.

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0  
Other: Oxidizer

## Fire and Explosion

## SECTION 2

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Information-----  
Fire:

Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Explosion: Contact with oxidizable substances may cause extremely violent combustion.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: Wear full protective clothing and breathing equipment for high-intensity fire or potential explosion conditions.

## Reactivity Data

## SECTION 3

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Stability:-----  
Stable under ordinary conditions of use and storage.Hazardous Decomposition  
Products:

Emits toxic fumes of nitric oxides when heated to decomposition.

## Hazardous Polymerization:

This substance does not polymerize.

## Incompatibilities:

Dimethyl formamide, combustible, organic and oxidizable materials.

## Leak/Spill Disposal Information

## SECTION 4

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Ventilate area of leak or spill. Clean-up personnel may require respiratory protection from dust. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Disposal: Whatever cannot be saved for reclamation may be delivered to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

## Health Hazard Information

## SECTION 5

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A. Exposure/Health Effects-----  
Inhalation: May cause mild irritation to the mucous membranes; symptoms may include coughing and shortness of breath.

Ingestion: Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse.

Skin Contact: Causes irritation, redness, and pain.

Eye Contact: Causes irritation to the eyes with redness and pain.

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

## Aggravation of

Pre-existing Conditions: No information found.

## B. FIRST AID

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Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

Skin Exposure: Remove any contaminated clothing. Wash skin with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

C. TOXICITY (RTECS, 1994)

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No information found.

Occupational Control Measures

SECTION 6

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Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): 15 mg/m<sup>3</sup> total dust, 5 mg/m<sup>3</sup> respirable fraction for nuisance dusts. -ACGIH Threshold Limit Value (TLV): 10 mg/m<sup>3</sup> total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved) If the TLV is exceeded, a dust/mist respirator may be worn up to ten times the TLV. Consult respirator supplier for details.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information

SECTION 7

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Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Separate from combustible, organic and any other readily oxidizable materials. Do not store on wooden floors.

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Addendum to Material Safety Data Sheet

REGULATORY STATUS



This Addendum Must Not Be  
Detached from the MSDS  
Identifies SARA 313 substance(s)

Any copying or redistribution of the MSDS  
must include a copy of this addendum

Hazard Categories for SARA  
Section 311/312 Reporting

	Acute ----- X	Chronic ----- X	Fire -----	Pressure -----	Reactive ----- X	
Product or Components of Product: -----	SARA EHS Sec. 302 RQ TPQ ---		SARA Sec. 313 Chemicals Name Chemical List Category -----		CERCLA Sec.103 RQ lbs -----	RCRA Sec. 261.33 -----
MAGNESIUM NITRATE (10377-60-3)	No	No	No	Nitrate Compd.	No	No

SARA Section 302 EHS RQ:  
Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:  
Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (\*)  
following a Threshold Planning Quantity signifies that if the material is a  
solid and has a particle size equal to or larger than 100 micrometers, the  
Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:  
Toxic Substances subject to annual release reporting requirements  
listed at 40 CFR 372.65.

CERCLA Sec. 103:  
Comprehensive Environmental Response, Compensation and Liability Act (Superfund)  
Releases to air, land or water of these hazardous substances which exceed the  
Reportable Quantity (RQ) must be reported to the National Response Center,  
(800-424-8802); Listed at 40 CFR 302.4

RCRA:  
Resource Conservation and Recovery Act. Commercial chemical product wastes  
designated as acute hazards or toxic under 40 CFR 261.33

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