

**Magnesium Nitrate 67%**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Magnesium Nitrate 67%

**Synonyms/Generic Names:** Inorganic Nitrate Solution, Aqueous

**Product Number:** 3263

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

**2. HAZARDS IDENTIFICATION**

**Signal Word:** Danger

**Pictograms:**  

**GHS Classification:**

Oxidizing Liquid	Category 2
Skin Corrosive	Category 1B
Eye Damage	Category 1
Corrosive Liquid	Category 1

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

**Precautionary Statements:**

P210	Keep away from heat / sparks / open flames / hot surfaces – No smoking
P220	Keep / store away from clothing combustible materials
P221	Take any precaution to avoid mixing with combustibles
P234+P404+P405	Keep only in original container. Store in closed container. Store locked up.
P260	Do not breathe mist / vapors / spray.

P264	Wash thoroughly after handling
P280	Wear protective gloves / eye protection / face protection.
P301+P330+P331	IF SWALLOWED: RINSE MOUTH. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor / physician
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use extinguishing media listed in Section 5 of SDS for extinction.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents / container in accordance with local / national regulation.

#### Potential Health Effects

<b>Eyes</b>	Causes serious eye damage. May cause eye severe irritation and corneal damage.
<b>Inhalation</b>	May severely damage contacted tissue.
<b>Skin</b>	Causes severe skin burns. May cause skin irritation, reddening, swelling.
<b>Ingestion</b>	May be harmful to fatal if swallowed.

#### NFPA Ratings

<b>Health</b>	2
<b>Flammability</b>	0
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

#### HMIS Ratings

<b>Health</b>	2
<b>Fire</b>	0
<b>Reactivity</b>	0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Magnesium Nitrate hexahydrate	64-69	13446-18-9	233-826-7	MgN <sub>2</sub> O <sub>6</sub> ·6H <sub>2</sub> O	256.41 g/mol
Nitric acid	0-2	7697-37-2	231-714-2	HNO <sub>3</sub>	63.013 g/mol
Water	Balance	7732-18-5	231-791-2	H <sub>2</sub> O	18.00 g/mol

### 4. FIRST-AID MEASURES

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention if necessary.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
<b>Skin</b>	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

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## 5. FIRE-FIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	Recommended extinguisher media: alcohol resistant foam, CO <sub>2</sub> , powder, water spray. Do not use, water jet. Use appropriate media for adjacent fire.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Hazardous decomposition: Oxides of carbon and nitrogen. (See also Stability and Reactivity section).

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well-ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Nitric Acid	2 ppm 5.2 mg/m <sup>3</sup>	TLV	ACGIH
	4 ppm 10 mg/m <sup>3</sup>	STEL	ACGIH
	2 ppm 5 mg/m <sup>3</sup>	PEL	OSHA
	2 ppm 5 mg/m <sup>3</sup>	REL	NIOSH
	4 ppm 10 mg/m <sup>3</sup>	STEL	NIOSH
	25 ppm	IDLH	NIOSH

## Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, and apron or lab coat.
<b>Other</b>	Not Available

## Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance (physical state, color, etc.)	Clear to slightly yellow liquid
Odor	Acid/Acid odor
Odor threshold	Not Available
pH	<2
Melting point/freezing point	-7°C (20°F) Freezing
Initial boiling point and boiling range	100°C (212°F)
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Density	1.20 – 1.50 g/ml @ 15°C/ 60°F (H <sub>2</sub> O=1)
Solubility (ies) in water	Complete
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Not Available
<b>Conditions to Avoid</b>	Avoid exposure to extreme temperatures; flames; contact with incompatible materials; combustible materials. Avoid evaporation of liquid to crystals and organic materials (i.e. oil, grease).
<b>Incompatible Materials</b>	Strong alkalis, strong reducing agents, fine powdered metals, mild steel.
<b>Hazardous Decomposition Products</b>	Decomposition (on heating) may produce acrid vapors, toxic and corrosive fumes.

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## 11. TOXICOLOGICAL INFORMATION

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### Acute Toxicity

#### *Magnesium Nitrate*

<b>Skin</b>	LD50 Skin- rat- >5,000 mg/kg
<b>Eyes</b>	Not Available
<b>Respiratory</b>	Not Available
<b>Ingestion</b>	LD50 Oral- rat- 5,440 mg/kg

### Carcinogenicity

<b>IARC</b>	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>ACGIH</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
<b>NTP</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
<b>OSHA</b>	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Signs & Symptoms of Exposure

<b>Skin</b>	Irritation, redness, swelling
<b>Eyes</b>	Irritation, redness, watering eyes
<b>Respiratory</b>	Irritation, coughing
<b>Ingestion</b>	Burns, irritation

<b>Chronic Toxicity</b>	Not Available
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

#### *Nitric acid*

<b>Aquatic Vertebrate</b>	LC50 (96 hours):100.00 mg/l <i>Asterias rubens</i>
<b>Aquatic Invertebrate</b>	EC50 (48 hours): 180.00 mg/l <i>Carcinus maenas</i>
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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US DOT	UN3093, Corrosive liquids, oxidizing, n.o.s., (Magnesium nitrate, Nitric acid), 8 (5.1) pg II
TDG	UN3093, CORROSIVE LIQUID, OXIDIZING, N.O.S. (MAGNESIUM NITRATE, NITRIC ACID), 8 (5.1), PG II
IMDG	UN3093, CORROSIVE LIQUID, OXIDIZING, N.O.S. (MAGNESIUM NITRATE, NITRIC ACID), 8 (5.1), PG II
Marine Pollutant	No
IATA/ICAO	UN3093, Corrosive liquids, oxidizing, n.o.s., (Magnesium Nitrate, Nitric acid), 8 (5.1) pg II

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
SARA 302	Listed: Nitric Acid
SARA 304	Listed: Nitric Acid
SARA 311	Reactive Hazard, Acute Health Hazard
SARA 312	Reactive Hazard, Acute Health Hazard
SARA 313	Listed: Nitric Acid
WHMIS Canada	Class C: Oxidizing material Class E: Corrosive material

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## 16. OTHER INFORMATION

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Revision	Date
Original	04/23/2020

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.