

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

| | |
|--------------|----------------------------------|
| Product name | Magnesium Nitrate 66.7% Solution |
| CAS number | See Section 3 |
| Synonyms | N/A |

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

| | |
|-----------------|---|
| Identified uses | Utilized in a variety of industrial chemical processes. |
|-----------------|---|

1.3 Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A. |
| Telephone | 512-668-9918 |
| Fax | 512-886-4008 |

1.4 Emergency telephone

| | | |
|--------------------------|------------------------------|----------|
| Emergency Phone # | US & Canada: 1-800-535-5053 | INFOTRAC |
| | International 1-352-323-3500 | INFOTRAC |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

2.2 GHS Label elements, including precautionary statements

None required.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|-------------------------------|--------------------------|------------|---------------|
| Magnesium nitrate hexahydrate | - | 13446-18-9 | 66.7% |
| Water | Aqua; H ₂ O | 7732-18-5 | 33.3% |

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- If inhaled** Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary.
- In case of skin contact** Take off all contaminated clothing. Rinse skin with soap and water for at least 15 minutes. Seek medical attention if irritation persists. Wash contaminated clothing before reuse.
- In case of eye contact** Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.
- If swallowed** Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

High levels of nitrates may reduce the blood's ability to transport oxygen causing headache, fatigue, dizziness, and blue lips and skin (methemoglobinemia). Moderate irritant of eyes, skin, mucous membranes, and contaminated tissue. Prolonged contact can result in tissue damage which could lead to blindness. Ingestion can be harmful or fatal. Methemoglobinemia is the primary health effect. Prolonged skin contact may result in dermatitis (inflammation and redness of skin). Repeated ingestion of small amounts may cause weakness, depression, headaches, neurological effects, and mental impairment.

4.3 Indication of any immediate medical attention and special treatment needed

If symptoms persist, call a physician. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Unsuitable extinguishing media No information available.

5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition. In a fire this material may decompose and produce acrid vapors, magnesium compounds, and oxides of nitrogen.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 1 | 0 | 0 | N/A |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid splashing. Prevent exposure to spilled material with the use of proper PPE. Protective Equipment PPE should include gloves, goggles, and protective clothing.

6.2 Environmental precautions

Avoid release to environment. Control the flow of product using dikes of soil, sand bags, or other commercially available inert sorbent socks or booms.

6.3 Methods and materials for containment and cleaning up

Absorb product with inert absorbent. Avoid splashing or spraying. Contain and pick up spill in diked area. Prevent discharge to sewers or water ways. If uncontaminated, recover and re-use.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a well-ventilated, cool, dry place. Containers should be kept closed and properly labeled.

Incompatibilities

Flammable and combustible materials, strong reducing agents and strong acids, finely powdered metals.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Physical State | Liquid |
| Appearance | Colorless to slightly yellowish |
| Odor | Little to no detectable odor |
| Odor Threshold | No information available |
| pH | 3.5 - 5.0 |
| Melting Point/Range | < 5°F |
| Boiling Point/Range | > 212°F at 1 atm |
| Evaporation Rate | No information available |
| Flammability (solid) | Not applicable |
| Flammability or explosive limit | No data available |
| Upper | |
| Lower | |
| Vapor Pressure | No information available |
| Vapor Density | No information available |
| Density | 1.359 |
| Solubility | Miscible |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temp | No information available |
| Decomposition Temp | No information available |
| Viscosity | No information available |
| Molecular Formula | MgN ₂ O ₆ · 6H ₂ O |
| Molecular Weight | 256.4 g/mol |
| VOC Content(%) | No information available |
| Oxidizing properties | No information available |

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is not reactive under normal conditions. Avoid interaction with heat (flames), oxidizers, acids, or alkalis.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Keep away from direct heat sources. Avoid heating within a confined space. Avoid incompatibilities and contamination. Avoid extreme heat and protect incompatible materials.

10.5 Incompatible materials

Avoid contact with readily oxidizable materials, strong acids, strong reducing agents, alkalis, and finely powdered metals.

10.6 Hazardous decomposition products

Extreme heat may cause decomposing to acrid vapors, magnesium compounds, and nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-------------------------------|------------------|-------------|-----------------|
| Magnesium nitrate hexahydrate | 5440 mg/kg (Rat) | - | - |

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

No information available.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

| Component | CAS | IARC | NTP | ACGIH | OSHA | Mexico |
|-----------|-----|------|-----|-------|------|--------|
|-----------|-----|------|-----|-------|------|--------|

| | | | | | | |
|-------------------------------|------------|------------|------------|------------|------------|------------|
| Magnesium nitrate hexahydrate | 13446-18-9 | Not listed | Not listed | Not listed | Not listed | Not listed |
| Water | 7732-18-5 | Not listed | Not listed | Not listed | Not listed | Not listed |

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

The toxicological properties have not been fully investigated.

SECTION 12: Ecological information

12.1 Toxicity

Do not empty into drains. High concentrations may be harmful to fish and other aquatic organisms.

12.2 Persistence and degradability

Soluble in water. Persistence is unlikely based on information available.

12.3 Bio accumulative potential

This product is not bio accumulative.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US) Not regulated.

IMDG Not regulated.

IATA Not regulated.

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
See Section 2 for more information.

SARA 313 (TRI reporting)
Listed, Magnesium nitrate hexahydrate (CAS #13446-18-9).

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Listed, Magnesium nitrate hexahydrate (CAS #13446-18-9).

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

California Proposition 65

Not listed.

SECTION 16: Other information

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Revision 1: 01/13/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.