



SAFETY DATA SHEET

MAGNESIUM NITRATE SOLUTION

Section 1 – Identification

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| Product | Magnesium Nitrate Solution | Recommended Use: Used in the production of fertilizers. |
| Manufacturer | TradeMark Nitrogen Corp. | |
| Address | 1216 Old Hopewell Road, Tampa, FL 33619 | |
| Phone | (813) 626-1181 (800) 452-3107 | |
| 24 Hour Emergency Contact | Chemtrec (800) 424-9300 | |

Section 2 – Hazard Identification



GHS07

Signal Word: **WARNING**

Hazard Statements

- H302 Harmful if swallowed
- H320 Causes serious eye irritation
- H335 May cause respiratory irritation

Precautionary Statements:

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103 Read label before use
- P210 Keep away from open flames. - No Smoking
- P260 Do not breathe fume, mist, spray, vapours
- P264 Wash hands thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear eye protection, protective clothing, protective gloves
- P331 Do NOT induce vomiting
- P301+P330 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell
- P302+P352 IF ON SKIN: Wash with plenty of water
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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
- P362 Take off contaminated clothing
- P501 Dispose of contents / container according to local, regional, national, and international regulations

Section 3 – Composition

| Ingredients | Component | CAS. No. | Percent by Weight |
|-------------|---|------------|-------------------|
| | Magnesium Nitrate $Mg(NO_3)_2 \cdot 6H_2O$ | 10377-60-3 | 38.5% |
| | Water (H ₂ O) | 7732-18-5 | Balance |

Section 4 – First Aid Measures

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| Inhalation | If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Seek medical attention if necessary. |
| Skin Contact | If on skin (or hair): 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. |
| Eye Contact | If in eyes: 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. |
| Ingestion | If swallowed: Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Seek medical attention. |
| Acute Health Hazards | 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. |
| Chronic Health Hazards | 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. |

Section 5 – Fire Fighting Measures

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| Suitable Extinguishing Techniques & Equipment | Not combustible or reactive, but can contribute to the intensity of the fire. Water spray is recommended. Halon, foam, dry chemical, CO2 or any ABC class extinguisher are acceptable. Wear self-contained breathing apparatus and full protective gear. |
| Chemical Hazards From Fire | In a fire this material may decompose and produce acrid vapors, magnesium compounds and oxides of nitrogen. |
| Special Fire Fighting Procedures | Use extinguishing agent most appropriate to surrounding materials. |
| NFPA Rating | Health - 1 (Slight) Fire - 0 (Least) Reactivity - 0 (Least) |
| Other | Do not allow run-off from fire fighting to enter drains or water courses. |



Section 6 – Accidental Release Measure

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| Personal Precautions | Avoid splashing. Prevent exposure to spilled material with the use of proper PPE. |
| Protective Equipment | PPE should include gloves, goggles and protective clothing. |
| Containment | Avoid release to environment. Control the flow of product using dikes of soil, sand bags or other commercially available inert sorbent socks or booms. |
| In Case of Spill | 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. |

Section 7 – Safe Handling & Storage

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| Precautions for Safe Handling & Storage | Store in a well ventilated cool dry place. Containers should be kept closed and properly labeled. |
| Incompatibility | Flammable and combustible materials, strong reducing agents and strong acids, finely powdered metals. |

Section 8 – Exposure Controls / Personal Protection

| Exposure Limits | Component | Permissible Exposure Limit | Threshold Limit Value | Short Term Exposure Limit | Immediately Dangerous to Life or Health |
|----------------------|--|----------------------------|-----------------------|---------------------------|---|
| | Magnesium Nitrate (Mg(NO3)2) | Not Established | Not Established | Not Established | Not Established |
| | Water (H2O) | Not Established | Not Established | Not Established | Not Established |
| Engineering Controls | Local or general exhaust. Eyewash and emergency shower facilities should be available. | | | | |

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| Personal Protective Equipment | Eyes | Chemical safety goggles or safety glasses. |
| | Hands | Impervious chemical protective gloves. |
| | Respiratory | None required under normal conditions. NIOSH approved respirator if there is a mist of the product. |
| | Protective Clothing | |



Gloves



Protective Clothing



Goggles



Respiratory Protection

Section 9 – Physical & Chemical Properties

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| Appearance and Odor | Colorless to slightly yellowish liquid with little to no detectable odor. | Specific Gravity | 1.359 |
| Boiling Point | > 212°F at 1 atmosphere | Molecular Weight | No Data Available |
| Freezing Point | < 5°F | Solubility in Water | No Data Available |
| Vapor Pressure | No Data Available | Flash Point | Not flammable |
| Weight per Gallon | 11.33 lbs/gal @ 68°F | pH | 3.5 - 5.0 |
| Gallons per Ton | 177.6 | Salt-Out Temp | 15°F |
| Flammability Limits | No Data Available | Auto Ignition Temp | Not Flammable |
| UEL | No Data Available | LEL | No Data Available |

Section 10 – Stability & Reactivity

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| Reactivity | Product is not reactive under normal conditions. Avoid interaction with heat (flames), oxidizers, acids or alkalis. |
| Stability | Product is stable under normal conditions. |
| Hazardous Reactions | None known. Hazardous polymerization will not occur. |
| Conditions to Avoid | Keep away from direct heat sources. Avoid heating within a confined space. Avoid incompatibilities and contamination. Avoid temperatures above 120°F (49°C) and below 32°F (0°C). |
| Incompatible Materials | Avoid contact with readily oxidizable materials, strong acids, strong reducing agents, alkalis and finely powdered metals. |
| Hazardous Decomposition Products | Extreme heat may cause decomposing to acrid vapors, magnesium compounds and nitrogen oxides. |

Section 11 – Toxicology Information

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| Routes of Exposure | Inhalation, ingestion or skin/eye absorption |
| Symptoms and Signs of Exposure | Eyes Mild eye irritation. Skin Mild irritant. Inhalation May irritate respiratory tract and mucous membranes. Ingestion Can cause abdominal pain, vomiting, diarrhea and methemoglobinemia. |
| Long Term Effects | Methemoglobinemia is the primary long-term health effect of over-exposure. |
| Toxicity | No limits have been set for this material. Rat Oral Toxicity LD ₅₀ 5,440 mg/kg |
| Carcinogen | The International Agency for Research on Cancer has not classified Magnesium Nitrate for its carcinogenic potential (IARC 1987). |

Section 12 – Ecological Information

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| Water | High concentrations may be harmful to fish and other aquatic organisms. |
| Ecotoxicity | No Data Available |
| Persistence and Degradability | No Data Available |
| Bioaccumulative potential | This product is not bioaccumulative |
| Mobility in soil | No Data Available |
| Other adverse effects | No Data Available |

Section 13 – Disposal Considerations

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| Waste | Disposal must be done in accordance with local, state and federal environmental regulations. Place waste in an appropriate container with correct labeling. |
| Additional Information | Dispose of used containers at an approved waste handling facility. Empty containers may contain residue of the product, follow label warnings even after container is emptied. |

Section 14 – Transport Information

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| DOT | Not regulated as dangerous goods |
| IMDG | Not regulated as dangerous goods |
| IATA | Not regulated as dangerous goods |
| Special Precautions | None Known |
| STCC Code | 2871315 |

Section 15 – Regulatory Information

United States - SARA Hazard Category This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories:

Fire - No Pressure - No Reactive - No Acute - No Chronic - No

SARA Title III Information This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| Chemical | CAS No. | CERCLA RQ (lbs.) | SARA Reporting | | |
|-------------------|------------|------------------|----------------|-----|-----|
| | | | 302 | 304 | 313 |
| Magnesium Nitrate | 10377-60-3 | N/A | N/A | N/A | N/A |

CERCLA / Superfund, 40 CFR Part 117, 302 If this product contains components subject to substances designated as CERCLA reportable Quantity (RQ) Substances, it will be designated in the above table with the RQ value in pounds. If there is a release of RQ Substance to the environment, notification to the National Response Center, Washington DC (800-424-8802) is required.

TSCA Magnesium Nitrate is a hydrated form of Nitric Acid, Magnesium Salt, which is listed on the Active TSCA inventory.

Section 16 – Other Information

Issue Date 2/12/2024

Date of Revision February 2024 SDS updated to include STCC code. April 2023 salt out temp updated and pH adjusted. June 2019 TSCA Statement revised to include the word 'Active'. May 1, 2019 SDS updated to meet GHS Requiements. June 2018 SDS format updated. October 2017 SDS update to meet GHS Standards. August 2014 TSCA statement revised. February 2013 revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.

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