

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Magnesium Niobate

Chemical Formula: MgNb_2O_6

Manufacturer Item Number: MA-3090

Manufacturer: Lorad Chemical Corporation
1200 19th Street North
Saint Petersburg, Florida, 33713
United States of America

Telephone: +1 (727) 826-5511

Fax: +1 (727) 826-5510

Emergency Contact: (800) 255-3924 (US & Canada)
+1 (813) 248-0573 (International)

2. HAZARD IDENTIFICATION

Signal Word: Not a hazardous substance or mixture.

Pictograms: N/A

Hazard Statements: N/A

Precautionary Statements: N/A

HMIS Ratings (0-4)

| | |
|-----------------|---|
| - Health: | 1 |
| - Flammability: | 0 |
| - Physical: | 0 |

3. COMPOSITION

Additional Names: Magnesium Niobium Oxide; Magnesium Diniobate

Percentage: 100 wt%

CAS #: 12163-26-7

EC #: 235-310-7

4. FIRST AID PROCEDURES

General Treatment Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.

Special Treatment: No Data Available.

Important Symptoms: No Data Available.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SAFETY DATA SHEET

Skin: Wash off with soap and plenty of water. Consult a physician.

Eyes: Immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Consult a physician.

5. FIREFIGHTING MEASURES

Flammability: Not Flammable.

Special Hazards from Substance: Magnesium oxides, Niobium oxides

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled: Use appropriate personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Environmental Precautions: No additional environmental precautions required.

7. HANDLING AND STORAGE

Handling Conditions: Use appropriate personal protective equipment. Ensure adequate ventilation.

Storage Conditions: Keep container tightly closed in a cool, dry, and well-ventilated place.

Work / Hygienic Maintenance: Do not use tobacco or food in the work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

| Permissible Exposure Limits: | Authority | Basis | Limit | Remarks |
|------------------------------|-----------|-------|-------|---|
| | - | - | - | Contains no substances with occupational exposure limits. |

| Threshold Limit Value: | Authority | Basis | Limit | Remarks |
|------------------------|-----------|-------|-------|---|
| | - | - | - | Contains no substances with occupational exposure limits. |

Special Equipment: No Data Available.

Respiratory Protection: Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection: Safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Body Protection: Wear appropriate protective clothing.

SAFETY DATA SHEET
9. PHYSICAL AND CHEMICAL CHARACTERISTICS

| | | | |
|--|--------------------|--|--------------------|
| Color: | White | Molecular Weight: | 306.11 g/mol |
| Forms: | Powder | Density: | No Data Available. |
| Odor: | Odorless | pH: | No Data Available. |
| Water Solubility: | Insoluble | Auto-Ignition Temperature: | No Data Available. |
| Boiling Point: | No Data Available. | Evaporation Rate: | No Data Available. |
| Melting Point / Freezing Point: | No Data Available. | Flammability or Explosive Limits: | No Data Available. |
| Vapor Pressure: | No Data Available. | Partition Coefficient: n-octanol/ water | No Data Available. |
| Vapor Density: | No Data Available. | Decomposition Temperature: | No Data Available. |
| Flash Point: | No Data Available. | Viscosity: | No Data Available. |

10. REACTIVITY

| | |
|--|--|
| Stability: | Stable under recommended storage conditions. |
| Reacts with: | No Data Available. |
| Incompatible Conditions: | No Data Available. |
| Hazardous Decomposition Products: | Under fire conditions may form Magnesium oxide or Niobium oxide fumes. |

11. TOXICOLOGICAL INFORMATION

| | | |
|-------------------------|--|---|
| Acute Toxicity | Eyes: | No Data Available. |
| | Skin: | Metallic magnesium which perforates the skin may cause local lesions. |
| | Ingestion: | Some magnesium salts have produced muscle weakness, cardiac arrhythmias, respiratory effects, and changes in blood chemistry following ingestion. |
| | Inhalation: | Inhalation of magnesium compounds may cause metal fume fever. |
| Chronic Toxicity | Skin Corrosion / Irritation: | May cause irritation. |
| | Serious Eye Damage / Irritation: | May cause irritation. |
| | Respiratory / Skin Sensitization: | No Data Available. |
| | Mutagenic Effects: | No Data Available. |
| | Reproductive / Teratogenic Effects: | No Data Available. |
| | Specific Target Organ Toxicity: (single exposure) | No Data Available. |
| | Specific Target Organ Toxicity: (repeated exposure) | No Data Available. |
| | Aspiration Hazard: | No Data Available. |

SAFETY DATA SHEET

Other Adverse Effects: Niobium compounds have caused liver damage in animal studies. Niobium metal has caused kidney damage in laboratory animals via intravenous route and fibrogenic effects in laboratory animals via intratracheal route.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: No Data Available.

Persistence and degradability: Insoluble in water.

Bioaccumulative potential: No Data Available.

Notes: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable materials to a licensed disposal company. Dispose of in accordance with local, state, or national regulations.

14. TRANSPORTATION DATA

Hazardous: **DoT:** Not Dangerous Goods.
IMDG: Not Dangerous Goods.
IATA: Not Dangerous Goods.

Pictogram: N/A

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

US DoT **Proper Name:** N/A

Marine Pollutant:

IMDG **Proper Name:** N/A

EMS-No:

IATA **Proper Name:** N/A

15. REGULATORY INFORMATION

Toxic Substance Control Act

Listed

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| | |
|---|---|
| SARA 302 Components | No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. |
| SARA 313 Components | This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimus) reporting levels established by SARA Title III, Section 313. |
| SARA 311/312 Hazards | No SARA Hazards. |
| Massachusetts Right to Know Components | No components are subject to the Ma. Right to Know Act. |
| Pennsylvania Right to Know Components | Magnesium Niobate (CAS No. 12163-26-7) |
| New Jersey Right to Know Components | Magnesium Niobate (CAS No. 12163-26-7) |
| California Prop. 65 Components | This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. |

16. OTHER INFORMATION

Copyright 2018 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision Date: 7/10/2018