

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Niobium Pentoxide

Chemical Formula: Nb₂O₅

Manufacturer Item Number: NB-4490

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Warning

Pictograms:



Hazard Statements: H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Statements: P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P312 Call a POISON CENTER or doctor / physician if you feel unwell.
P321 Specific treatment (see supplemental first aid instructions on label).
P332+313 If skin irritation occurs; Get medical advice / attention.
P337+313 If eye irritation occurs: Get medical advice / attention.
P362 Take off contaminated clothing and wash before reuse.
P403+233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents / container to an approved waste disposal plant.

HMIS Health Ratings (0-4)

- Health: 2
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names:	Niobium(V) Oxide
Percentage:	100 wt%
CAS #:	1313-96-8
EC #:	215-213-6

4. FIRST AID PROCEDURES

General Treatment	Consult a physician. Show this SDS to the physician in attendance. Move out of dangerous area.
Special Treatment:	No Data Available.
Important Symptoms:	The most important known symptoms are described in Section 2 and / or Section 11.
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.
Skin:	Wash off with soap and plenty of water. Consult a physician.
Eyes:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5. FIREFIGHTING MEASURES

Flammability:	Not Flammable.
Special Hazards from Substance:	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 firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Environmental Precautions:	Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Handle in accordance with good industrial hygiene and safety practices.
Storage Conditions:	Keep container tightly closed in dry and well-ventilated place.
Work / Hygienic Maintenance:	Do not use tobacco or food in 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:	Contains no substances with occupational exposure limit values.
Threshold Limit Value:	Contains no substances with occupational exposure limit values.
Special Equipment:	No Data Available.
Respiratory Protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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 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 with side-shields. Glasses should conform to EN 166. 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.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White
Forms:	Powder
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	No Data Available.
Melting Point:	1,521°C (2,754°F)
Flash Point:	No Data Available.
Autoignition Temperature:	No Data Available.
Density:	4.6 g/cm ³
Molecular Weight:	265.81 g/mol

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong oxidizing agents
Incompatible Conditions:	No Data Available.
Hazardous Decomposition Products:	Metal oxide fume

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

- **Eyes** May cause irritation.
- **Skin** May cause irritation.
- **Ingestion** May cause irritation.
- **Inhalation** May cause irritation.
- **Chronic** May cause irritation.

Signs and Symptoms: No Data Available.

Aggravate Medical Conditions: No Data Available.

Median Lethal Dose: No Data Available.

Carcinogen: 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: Low aquatic toxicity.

Persistence and degradability: No Data Available.

Bioaccumulative potential: No Data Available.

Notes: No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product.

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

Proper Shipping Name: N/A

15. REGULATORY INFORMATION

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 minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard
Massachusetts Right to Know Components	No components are subject to the Ma. Right to Know Act.
Pennsylvania Right to Know Components	Niobium Pentoxide (CAS No. 1313-96-8)
New Jersey Right to Know Components	Niobium Pentoxide (CAS No. 1313-96-8)
California Prop. 65 Components	This product does not contain any chemical known to the State of California to cause cancer, birth defects, or any 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.

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