

# SAFETY DATA SHEET

Date Revised: 05/15/2017

## SECTION 1. IDENTIFICATION

**Product Name:** Niobium Nitride

**CAS #:** 24621-21-4

**Relevant identified uses of the substance:** Scientific research and development

**Supplier details:**

Stanford Advanced Materials  
23661 Birtcher Dr.  
Lake Forest, CA 92630  
Tel: +1 (949) 407-8904  
Fax: +1 (949) 812-6690

**Emergency telephone number:**

Domestic, North America: +1 (949) 407-8904

## SECTION 2. HAZARDS IDENTIFICATION

For additional information on toxicity, please refer to Section 11.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

NIOBIUM NITRIDE  
CAS # 24621-21-4  
Formula: NbN  
Sara 313: No

## SECTION 4. FIRST AID MEASURES

**ORAL EXPOSURE**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**INHALATION EXPOSURE**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give

oxygen.

#### DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

#### EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

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## SECTION 5. FIREFIGHTING MEASURES

#### FLASH POINT

N/A

#### AUTOIGNITION TEMP

N/A

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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## SECTION 7. HANDLING AND STORAGE

#### HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed. Store in a cool dry place.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

#### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Molecular Weight 106,9100 AMU

pH N/A

BP/BP Range N/A

MP/MP Range N/A

Freezing Point N/A

Vapor Pressure N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

SG/Density 8,4000

g/cm<sup>3</sup>

Bulk Density N/A

Odor Threshold N/A

Volatile% N/A

VOC Content N/A

Water Content N/A

Solvent Content N/A

Evaporation Rate N/A

Viscosity N/A

Surface Tension N/A

Partition Coefficient N/A

Decomposition Temp. N/A

Flash Point N/A

Explosion Limits N/A

Flammability N/A

Autoignition Temp N/A

Refractive Index N/A

Optical Rotation N/A

Miscellaneous Data N/A

Solubility N/A

N/A = not available

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## **SECTION 10. STABILITY AND REACTIVITY**

### **STABILITY**

Materials to Avoid: Strong oxidizing agents.

### **HAZARDOUS DECOMPOSITION PRODUCTS**

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **ROUTE OF EXPOSURE**

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

### **SIGNS AND SYMPTOMS OF EXPOSURE**

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

thoroughly investigated.

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## **SECTION 12. ECOLOGICAL INFORMATION**

No data available.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT

Proper Shipping Name: None

Non-Hazardous for Transport:

This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport:

Non-hazardous for air transport.

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## **SECTION 15. REGULATORY INFORMATION**

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: Yes

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## **SECTION 16. OTHER INFORMATION**

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