

# SAFETY DATA SHEET

Date Accessed: 25/08/2023

Date Revised: 28/11/2022

---

## SECTION 1. IDENTIFICATION

**Product Name:** Niobium Disulfide

**CAS #:** 12136-97-9

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

**Supplier details:**

Stanford Advanced Materials

E-mail: [sales@samaterials.com](mailto:sales@samaterials.com)

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

---

## SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

No known OSHA hazards

HMIS Classification

Health Hazard: 1

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 1

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : NbS<sub>2</sub>

Molecular Weight : 124.97 g/mol

---

## SECTION 4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

---

## SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point no data available

Ignition temperature no data available

Suitable extinguishing media

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

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

---

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions

Avoid dust formation.

Environmental precautions

No special environmental precautions required.

Methods for cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

---

## **SECTION 7. HANDLING AND STORAGE**

Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

---

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Personal protective equipment

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts 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).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses

Hygiene measures

General industrial hygiene practice.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: Crystalline/Powder

Color: Grey

Safety data

pH no data available

Melting point: no data available

Boiling point: no data available

Flash point: no data available

Ignition temperature: no data available

Lower explosion limit: no data available

Upper explosion limit: no data available

Density: no data available

Water solubility: no data available

---

## SECTION 10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Hydrogen peroxide, Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Molybdenum oxides

---

## SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

LC50 Inhalation - rat - 4 h - > 2,820 mg/m<sup>3</sup>

Remarks: Lungs, Thorax, or Respiration: Other changes.

Irritation and corrosion: no data available

Sensitisation: no data available

Chronic expolARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible 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.sure

Signs and Symptoms of Exposure

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

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

---

## SECTION 12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

---

## SECTION 13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

---

## SECTION 14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

---

## SECTION 15. REGULATORY INFORMATION

OSHA Hazards

No known OSHA hazards

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 ComponentsSARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III,

Section 302.

SARA 313 Components

SARA 313: 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

No SARA Hazards

---

## **SECTION 16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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 is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.