STANFORD ADVANCED MATERIALS

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Niobium Silicide NbSi2

CAS #: 12034-80-9

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

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

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Not a hazardous substance or mixture.

GHS Label elements, including precautionary statements:

Not a hazardous substance or mixture.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Formula : NbSi2

Molecular Weight : 149.08 g/mol

CAS-No. : 12034-80-9

SECTION 4. FIRST AID MEASURES

General advice:Move out of dangerous area.

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.

Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or

in section 11

Indication of any immediate medical attention and special treatment needed:

no data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:

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

Special hazards arising from the substance or mixture:

silicon oxides, niobium oxides

Advice for firefighters:

Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Avoid dust formation. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

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

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

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

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities:

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

Keep in a dry place

Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters:

Contains no substances with occupational exposure limit values

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice.

Personal protective equipment

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such

as NIOSH (US) or EN 166(EU).

Skin protection:

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.

Body Protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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).

Control of environmental exposure:

Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form: Powder or solid in various forms

Odor no data available

Odor Threshold no data available

pH no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point no data available

Evaporation rate no data available

Flammability (solid, gas) no data available

Upper/lower flammability or explosive limits: no data available

Vapor pressure no data available

Vapor density no data available

Relative density no data available

Water solubility no data available

Partition coefficient: n-octanol/water: no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Viscosity no data available

Explosive properties no data available

Oxidizing properties no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

no data available

Chemical stability:

Stable under recommended storage conditions.

Possibility of hazardous reactions:

no data available

Conditions to avoid:

no data available

Incompatible materials:

Strong oxidizing agents Strong oxidizing agents

Hazardous decomposition products:

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

no data available

Inhalation: no data available

Dermal: no data available

no data available

Skin corrosion/irritation:

no data available

Serious eye damage/eye irritation:

no data available

Respiratory or skin sensitization:

no data available

Germ cell mutagenicity:

no data available

Carcinogenicity:

IARC: 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.

Reproductive toxicity:

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

Additional Information

RTECS: Not available

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

investigated.Stomach - Irregularities - Based on Human Evidence

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SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

no data available

Persistence and degradability:

no data available

Bioaccumulative potential:

no data available

Mobility in soil:

no data available

Results of PBT and vPvB assessment:

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

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SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product

SECTION 14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SARA 302 Components

SARA 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

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Niobium disilicide

CAS-No. 12034-80-9

New Jersey Right To Know Components

Niobium disilicide

CAS-No. 12034-80-9California Prop. 65 Components:

This product does not contain any chemicals known to State of California to

cause cancer, birth defects, or any other reproductive harm.

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.