



# SAFETY DATA SHEET

Revision date 16-July-2020

## Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### Product Identifier

Product name: Hafnium Silicide (HfSi<sub>2</sub>) Powder  
Product Number : US1135M  
Hafnium Silicide (HfSi<sub>2</sub>) CAS: 12401-56-8

### Relevant identified uses of the substance or mixture and uses advised against

Recommended use Research

### Details of the supplier

Company name Hunan Huawei Jingcheng Material Technology Co., Ltd. Room  
Address 516, Hunan International Business Center, Jintai Plaza, East  
Second Ring, Furong District, Changsha City, Hunan Province,  
China.  
Website Telephone www.hnjc-metal.com  
Fax 0086-731-85124338

### Emergency telephone number

0086-731-85124338

## Section 2: HAZARDS IDENTIFICATION

The substance is not classified according to the Globally Harmonized System (GHS).

### Hazard statement(s)

This substance or mixture is not hazardous and is not classified under GHS.

May cause irritation of skin, eyes, and respiratory tract.

For the full text of the H-Statements mentioned in this Section, see Section 16

### GHS Label elements, including precautionary statements

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Hazards not otherwise classified (HNOC) or not covered by GHS

None

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### Substances

Synonyms : Hafnium Silicide (HfSi<sub>2</sub>) Powder

Hafnium Silicide (HfSi<sub>2</sub>) CAS number: 12401-56-8

### Hazardous components

Classification: Eye Irrit. 2A; STOT SE 3;

H319, H335

Concentration:

For the full text of the H-Statements mentioned in this Section, see Section 16.

## Section 4: FIRST AID MEASURES

### Description of first aid measures

Hunan Huawei Jingcheng Material Technology Co., Ltd. www.hnjc-metal.com

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**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: FIRE FIGHTING MEASURES****Extinguishing media Suitable**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Special hazards arising from the substance or mixture**

During fire, gases hazardous to health may be formed.

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

No data available

**Section 6: ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**Section 7: HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated 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**

Occupational exposure limits

US. ACGIH Threshold Limit Values

TWA: 0.5 mg/m<sup>3</sup>

US. NIOSH: Pocket Guide to Chemical Hazards

TWA: 0.5 mg/m<sup>3</sup>

**Exposure controls****Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

### Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

For any handling steps where the substance is in particulate form or in a suspension with pure water where the substance is not solubilized, the gloves must be comprised of material that successfully passes ASTM F-1671. For any handling steps where the substance is part of a carrier liquid, other than the aqueous suspension noted in the previous paragraph, gloves must be comprised of material that successfully passes ASTM F-739 (continuous liquid contact method). Gloves must be changed before they show degradation and before the designated breakthrough time for the carrier liquid (as determined by the ASTM F-739 testing or by the manufacturer). 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

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

The EPA mandates the use of full face respirators with minimum N100 grade cartridges if there is any risk of exposure to the dust. 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).

### Control of environmental exposure

Do not let product enter drains.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

- a) Appearance: Solid
- b) Odor: no data available
- c) Odor Threshold: no data available
- d) pH: no data available
- e) Melting point/freezing point: 1680 °C
- f) Initial boiling point and boiling range: no data available
- g) Flash point: no data available
- h) Evaporation rate: no data available
- i) Flammability (solid, gas): no data available
- j) Upper/lower flammability or explosive limits: no data available
- k) Vapor pressure: no data available
- l) Vapor density: no data available
- m) Relative density: 8.02
- n) Water solubility: insoluble
- o) Partition coefficient - noctanol/water: no data available
- p) Auto-ignition temperature: no data available
- q) Decomposition temperature: no data available
- r) Viscosity: no data available
- s) Explosive properties: no data available
- t) Oxidizing properties: no data available

### Other safety information

No data available

## Section 10: STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	The product is stable and non-reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions	No data available
Conditions to avoid	Contact with incompatible materials.
Incompatible Conditions	Strong acids, Strong bases, Oxidizing materials.
Hazardous Decomposition Products	No data available

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

no data available  
Inhalation: no data available  
Dermal: 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 mutagen city**

no data available

**Carcinogenicity**

IARC: Not listed.

ACGIH: Not listed.

NTP: Not listed.

OSHA: Not listed.

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

Inhalation - May cause respiratory irritation.

**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.

**Section 12: ECOLOGICAL INFORMATION**

Ecotoxicity	No further relevant information available.
Persistence and degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.
Results of PBT and vPvB assessment conducted	PBT/vPvB assessment not available as chemical safety assessment not required/not
Other adverse effects	No information available

**Section 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated

**Contaminated packaging**

Dispose of as unused product.

**Section 14: TRANSPORT INFORMATION**

**DOT (US)**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**Section 15: REGULATORY INFORMATION**

**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**

No SARA Hazards

**Section 16: OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3.**

Eye irritation

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

STOT SE Specific target organ toxicity - single exposure

**HMIS Rating**

Health hazard: 1 Flammability: 0

Physical Hazard 0

**NFPA Rating**

Health hazard: 1

Fire Hazard: 0

Reactivity Hazard: 0

**Further information**

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.

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**End of Safety Data Sheet**



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