



# SAFETY DATA SHEET

Revision date 16-July-2020

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

### 1.1. Product Identifier

CAS No.	25817-87-2
Product Name	Hafnium Nitride
Molecular Formula	HfN

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

Recommended use	Laboratory chemicals.
Used advised against	Not intended for diagnostic or therapeutic use.

### 1.3. Details of the supplier

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

### 1.4. Emergency telephone number

Chemtrec  
0086-731-85124338

## Section 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4 (H302)
Skin Sensitization	Category 1 (H317)

#### Physical hazards

Not classified.

#### Health hazards

Not classified.

#### Environmental hazards

Not classified.

### 2.2. Label Elements



**Signal Word**      **Warning**

Hunan Huawei Jingcheng Material Technology Co., Ltd. [www.hnjc-metal.com](http://www.hnjc-metal.com)

## Hazard Statements

H302 - Harmful if swallowed  
H317 - May cause an allergic skin reaction

### Precautionary Statement

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves  
Skin IF ON SKIN: Wash with plenty of soap and water If skin irritation or rash occurs: Get medical advice/attention Wash contaminated clothing before reuse Ingestion  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Disposal  
Dispose of contents/container to an approved waste disposal plant  
Hazards not otherwise classified (HNOC)  
None identified

### 2.3. Other Hazards

Not applicable.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 mixtures

Chemical Name	CAS No	EC-No.	Weight %
Hafnium Nitride (HfN)	25817-87-2	EEC No. 247-282-3	100

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

General advice Consult a physician if necessary.  
Inhalation Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.  
Skin Contact Wash skin with soap and water.  
Eye contact Wash with plenty of water.  
Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.  
Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available. None reasonably foreseeable. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

## Section 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

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

### 5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

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

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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

### 7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits

0.5 mg/m<sup>3</sup> as HfN, long-term value

Threshold Limit Value

0.5 mg/m<sup>3</sup> as HfN, long-term value

Special Equipment

None

Respiratory Protection

Dust Respirator

Protective Gloves

Rubber gloves

Eye Protection

Safety glasses or goggles

Body Protection

Protective work clothing. Wear close-toed shoes and long sleeves/pants.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Color	Yellow
Form	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor	Odorless Water
Water Solubility	Insoluble
Boiling Point	N/A
Melting Point	>3305 °C
Flash Point	N/A
Autoignition Temperature	N/A
Density	13.8 g/cc
Molecular weight	192.50 g/mol

## Section 10: STABILITY AND REACTIVITY

Reactivity	Stable under recommended storage conditions
Reacts With	Water, Acids, Bases, Oxidizing agents
Incompatible Conditions	Water/moisture
Hazardous Decomposition Products:	Metal oxide fume

## Section 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
Unknown acute toxicity	100% of the mixture consists of ingredient(s) of unknown toxicity.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity	May cause long lasting harmful effects to aquatic life.
Unknown aquatic toxicity	100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

Persistence and degradability	No information available.
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### 12.3. Bioaccumulative potential

Bioaccumulation	No information available.
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### 12.4. Mobility in soil

Mobility	No information available.
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### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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### 12.6. Other adverse effects

Other adverse effects	No information available
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## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

## Section 14: TRANSPORT INFORMATION

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	<u>RID / ADR</u> Not regulated	<u>IMDG</u> Not regulated	<u>ICAO (air) / IATA</u> Not regulated
14.1 UN/ID no	-	-	-
14.2 Proper shipping name	-	-	-
14.3 Hazard Class	-	-	-
Subsidiary hazard class / Labels	-	-	-
14.4 Packing Group	-	-	-
14.5 Environmental Hazard	-	-	-
14.6 Special Provisions	-	-	-

## Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: N/A  
Sec 304 Reportable Quantities: N/A  
Sec 313 Toxic Chemicals: N/A

## Section 16: OTHER INFORMATION

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

### Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**

**HUAWEI MATERIAL**  
*Experts come from dedication.*