

# MATERIAL SAFETY DATA SHEET

**Product Name** : Silicon Carbide

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**Description**: Silicon Carbide is produced in electrical resistance furnaces from high purity silica sands and petroleum coke, its combination of being very hard and sharp makes it a very aggressive abrasive ideal for many applications.

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## **Manufacturer**

ZHENGZHOU HAIXU ABRASIVES CO.,LTD

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## **Composition/Data on components:**

### **Chemical characterization:**

**Description:** (CAS#)

Silicon carbide, beta (CAS# 409-21-2), 98.5%

### **Identification number(s):**

EINECS Number: 206-992-8

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## **Hazards identification**

**Hazard description:** Xi Irritant

Information pertaining to particular dangers for man and environment

R 36/37/38 Irritating to eyes, respiratory system and skin.

### **First aid measures**

#### **After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

#### **After skin contact**

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

#### **After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

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## **5 Fire fighting measures**

### **Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.

### **Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide (CO)

### **Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

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## **Accidental release measures**

### **Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

### **Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:** Ensure adequate ventilation.

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## **Handling and storage**

### **Handling**

#### **Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

#### **Information about protection against explosions and fires:**

No special measures required.

### **Storage**

#### **Requirements to be met by storerooms and receptacles:**

No special requirements.

#### **Information about storage in one common storage facility:**

Store away from oxidizing agents.

#### **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

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## **Exposure controls and personal protection**

**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:**

Use suitable respirator when high concentrations are present.

**Protection of hands:** Impervious gloves

**Eye protection:**

Safety glasses

Tightly sealed goggles

Full face protection

**Body protection:** Protective work clothing.

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**Physical and chemical properties:**

**Form:** Powder

**Color:** Black or green

**Odor:** Odorless

**Melting point/Melting range:** 2700 °C (subl/dec)

**Boiling point/Boiling range:** Not determined

**Sublimation temperature / start:** Not determined

**Flash point:** Not applicable

**Ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Danger of explosion:**

Product does not present an explosion hazard.

**Explosion limits:**

**Lower:** Not determined

**Upper:** Not determined

**Vapor pressure:** Not determined

**Density:** at 20 °C 3.217 g/cm<sup>3</sup>

### **Solubility in / Miscibility with**

<b>Water:</b>	Insoluble	
<b>PH-value:</b>	(100 g/l ) at 20 ° C	3-7
<b>SiC</b>	97.5%min	
<b>F.C</b>	0.35%max	
<b>Fe2O3</b>	1.35%max	

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### **Stability and reactivity**

#### **Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents

#### **Dangerous reactions**

Contact with acids release flammable gases

Contact with alkali release flammable gases

**Dangerous products of decomposition:** Metal oxide fume

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### **Toxicological information**

#### **Acute toxicity:**

#### **Primary irritant effect:**

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

#### **Subacute to chronic toxicity:**

**Silicon carbide is a** nuisance dust capable of producing nonprogressive pulmonary fibrosis. Silicon carbide implants have caused tumors in laboratory animals.

#### **Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

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### **Ecological information:**

#### **General notes:**

Do not allow material to be released to the environment without proper governmental permits.

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### **Disposal considerations**

**Product:**

**Recommendation**

Consult state, local or national regulations for proper disposal.

**Uncleaned packagings:**

**Recommendation:**

Disposal must be made according to official regulations.

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### **Transport information**

Not a hazardous material for transportation.

**DOT regulations:**

**Hazard class:** None

**Land transport ADR/RID (cross-border)**

**ADR/RID class:** None

**Maritime transport IMDG:**

**IMDG Class:** None

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** None

**Transport/Additional information:**

Not dangerous according to the above specifications.

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### **Regulations**

**Product related hazard informations:**

**Hazard symbols:** Xi Irritant

**Risk phrases:**

36/37/38 Irritating to eyes, respiratory system and skin.

**Safety phrases:**

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

**Information about limitation of use:**

For use only by technically qualified individuals.

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**Other information**

The information provided in this 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, processionk, storage, transporation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and is not valid for sun material used in combination with any other materials or in any process.