Material Safety Data Sheet

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1 | IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product (Material) Name:	Silicon Carbide
Other Names:	Carbon silicide, Carborundum, Silicon monocarbide
Recommended Use:	Industrial abrasive media, polishing, sand blasting
Supplier Name:	Zhengzhou Xinli Wear-Resistant Material Co.,Ltd.
Supplier Address:	Xiangdong Industry, Longhu District, Zhengzhou City, Henan Province, China
Supplier Tel:	86 15837191978
Supplier Email:	xinli-abrasivematerial@outlook.com

2 | HAZARDS IDENTIFICATION

Hazard Classification:	HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS. According to the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)]. However in normal usage this product is not hazardous.
Risk Phrases:	R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. (Dust proportion)
Safety Phrases:	S22 Do not breathe dust S51 Use only in well-ventilated areas

3 | COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity of the Pure Substance:	SiC	
Common Names/ Synonym's:	Carbon silicide, Carborundum, Silicon monocarbide	
CAS Number:	409-21-2	
Chemical composition:	Silicon	Approx 96%
	Fe_2O_3	Approx 0.83%
	F.C	Approx 0.37%

4 | FIRST AID MEASURES

Facilities should be available where this product is used to carry out first aid procedures.

Description of Necessary First Aid Measures

Ingestion:	Non-toxic however swallowing this product may cause immediate or delayed abdominal discomfort and potentially increase the risk of gastro-intestinal infections. **The patient should be given water to drink and medical attention should be sought if any abdominal symptoms occur. Vomiting should not be induced, but if vomiting occurs, the patient should be lean forward or placed on their left hand side to maintain an open airway.**
Eye:	In the event that this material comes into contact with the eyes it may have an immediate or delayed irritating effect resulting in redness, watering and/ or infection. **Eyes should be immediately and thoroughly flushed with lukewarm water for as long as necessary to alleviate the problem (or for at least 15 minutes). Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Removal of contact lenses after an eye injury should only be conducted. Professional medical assistance should be sought if symptoms persist.**

Skin:	Skin contact with this product and/or their dusts may lead to immediate or delayed skin irritations and in susceptible people skin sensitisation, dermatitis and/or skin infection. **The affected areas should be washed thoroughly with mild soap and lukewarm water as quickly as possible.**
Inhalation:	Inhalation of dust from this product may have an immediate or delayed effect to irritate, inflame or sensitise the nose, throat and lungs, and exacerbate pre-existing conditions such as asthma and bronchitis. Children, pregnant women, the elderly, people with pre-existing conditions or the immunocompromised, may be at a particular risk from these illnesses if exposed to this product. **If an irritation occurs, the affected parties should be moved (or move themselves) away from the product or its dusts into a source of fresh air. Prostheses such as false teeth, which may block the airways, should be removed where possible prior to initiating first aid procedures. Professional medical attention should be sought if symptoms persist.**

5 | FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Not relevant
Hazards from Combustion Products:	Not relevant
Precautions for Fire Fighting and Special Protective Equipment:	Not relevant

6 | ACCIDENTAL RELEASE MEASURES

Emergency Procedures

In the event of a spill or release of the product from a transport vehicle or storage area in a sensitive environment including near water bodies:

1. Advise the applicable state based roads authority
2. Advise the applicable stated based environment body

Methods and Materials for Containment and Clean Up Procedures

In the event of a spill or release of the product from a transport vehicle or storage area where bunding does not exist in order to contain and clean up:

- Secure the site by:
  - Covering the material with a sheet/ tarpaulin secured to the ground in order to protect against dust emissions and gravitational flows into waterways.
  - Bunding the area and cover drains to protect against over-ground run-off in waterways, surrounding land and drainage systems.
- Clean up the spill immediately once the site is secured. Avoid generating dust.
- Collect the material (using a vacuum system if required), load, transport and store all of the material released for use as planned or dispose of safely in a landfill or licensed recovery facility.
- Check the surrounding area to ensure all material has been captured. Collect all material if possible or seek advice from the stated based environment body.

7 | HANDLING AND STORAGE

Precautions for Safe Handling

This product is abrasive. When handling this material ensure that workers stay away from equipment that is moving and/ or processing exposed material and avoid coming into contact with the product by wearing:

- A suitable respiratory protective device conforming to AS/NZS 1715: 2009– Selection, use and maintenance of respiratory protective devices. A Class P1 Particulate Respirator is typically most appropriate.
- Suitable gloves conforming with AS/ NZS 2161: 2008 – Occupational protective gloves. Standard duty leather/pigskin, rubber or neoprene gloves are typically most appropriate.

- Full length protective trousers and shirts (or overalls).
- Suitable boots for the site.
- Suitable eye protection conforming with AS/ NZS 1336: 1997 – Recommended practices for occupational eye protection. Low impact goggles with indirect ventilation (HT or CT with C, D optional) are typically most appropriate.

Additional handling procedures should include:

- Limit exposure to the product.
- Wash any areas of the body that the product may have come into contact after exposure.
- Regularly vacuum enclosed areas where the product is used or install a dust extraction system.
- When handling this material ensure the environment is protected from releases by not moving the material during adverse weather conditions such as wind and precipitation, bunding the handling area and providing wind breaks.
- As with all dust materials, ensure adequate ventilation against the relevant exposure standards (Section 8) and also to prevent dust explosions.
- Shower and change after completion of blasting.
- Wash hands and face after handling and blasting.

Conditions For Safe Storage

When storing this material:

- Store in closed, well-ventilated containers to prevent dust exposure.

8 | EXPOSURE CONTROLS/ PERSONAL PROTECTION

National Exposure Standards

No specific exposure standards have been allocated. However due to the dust in the product, concentrations for monitoring exposure are provided by a number of standards as listed below:

Total Inhalable Dust

10mg/m³ (National Occupational Health & Safety Commission, 2004).

Total Respirable Dust

2mg/m³ (American Conference of Governmental Occupational Hygienists, 1986).

Biological Limit Values:	No biological limit allocated
Engineering Controls:	Ensure all blast cleaning equipment complies with regulatory regulations and safety standards and are functioning adequately.
	Ensure the area for workers are adequately ventilated below exposure standards.
Personal Protection Equipment:	Abrasive blast helmet air line respirator with protective lens (AS/NZS 1716:2003).
	Heavy duty protective suit, gloves (AS/NZS 2161:2008) and foot wear (AS/NZS 2210.5:2009).

9 | PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark grey solid granules
Odour:	Odourless
pH:	5-6
Vapour Density:	Not applicable
Vapour Pressure:	Not applicable
Boiling point/ Range:	Not applicable
Melting point:	>2000°C
Solubility:	Insoluble in water
Specific Gravity (Relative Density):	1629
Flashpoint:	Not applicable

Flammable limits in air:	Not applicable
Ignition temperature:	Not applicable

10 | STABILITY AND REACTIVITY

Chemical stability:	Stable
Conditions to avoid:	None identified
Incompatible materials:	None identified
Hazardous Decomposition products:	None identified
Hazardous Reactions:	None identified

11 | TOXICOLOGICAL INFORMATION

Acute Health Effects

Ingestion:	Ingestion is unlikely through normal use. However, swallowing any amount of this product may cause immediate or delayed abdominal discomfort due to abrasion. **It is not recommended to repeatedly swallow this material.**
Eye:	In the event that any dose of this material or the dust comes into contact with the eyes it may have an immediate or delayed irritating effect resulting in redness and watering or an infection. **It is not recommended to repeatedly allow this material to come into contact with the eyes.**
Skin:	Any level of skin contact with this product and/or their dusts may lead to immediate or delayed skin irritations and in susceptible people with sensitive skin, dermatitis or skin infection. **It is not recommended for people susceptible to skin irritations to repeatedly allow this material to come into contact with the skin.**
Inhalation:	Inhalation of large amounts of dust from this product may have an immediate or delayed effect to irritate, inflame or sensitise the nose, throat and lungs, and exacerbate pre-existing conditions such as asthma and bronchitis. Inhalational studies in rats with silicon carbide dust (20 mg/m^3) reported no significant effects on the lungs compared to the adverse effects of quartz dust. **It is not recommended for people to repeatedly inhale this material.**

Chronic Health Effects

Excess mortality from asthma, emphysema, chronic bronchitis, pneumoconiosis and lung cancer among silicon carbide workers has been reported.

Contact with this product outside of intended use in not recommended.

12 | ECOLOGICAL INFORMATION

Ecotoxicity:	None identified
Persistence/Degradability:	Not applicable
Mobility:	Not applicable

13 | DISPOSAL CONSIDERATIONS

Disposal Methods:	If possible accumulated dust should be removed using wet cleaning methods, or High Efficiency Particulate Air (HEPA) filter vacuum methods. Suitable landfill or facility with an approval to reuse this material
Special Precautions for Landfill or Incineration:	Not relevant

14 | TRANSPORT INFORMATION

UN Number:	None allocated
Proper Shipping Name:	None allocated
Class and Subsidiary Risk(s):	Not applicable

Packing Group:	Not applicable
Special Precautions for User:	Not applicable
Hazchem Code:	Not applicable
Other special storage or transport information:	Transport in a covered container and avoid exposure to wind to prevent dust released into surroundings

15 REGULATORY INFORMATION

None applicable

16 OTHER INFORMATION

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Specific Query Contact Name:	Jenny
Position:	Sales Manager Query Telephone: +8615837191978