



XI'AN FUNCTION MATERIAL GROUP CO., LTD
Material Safety Data Sheet

Calcium silicide

1. Product and Company Identification

Trade Name: Calcium silicide
Chemical Formula: CaSi_2
Recommended Use: Scientific research and development

Manufacturer/Supplier: XI'AN FUNCTION MATERIAL GROUP CO., LTD
Street: No. 69, Gazelle Valley, High-Tech Zone
City: XI'AN
State: Shannxi
Zip Code: 710077
Country: China
Tel #: +86-29-88993870/+86-13519132051

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H261: In contact with water releases flammable gas

Precautionary Statements: P223: Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232: Handle under inert gas. Protect from moisture.
P233: Keep container tightly closed
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P335+P334 Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.
P370+P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P402+P404: Store in a dry place. Store in a closed container.
P501: Dispose of contents/ container to an approved waste disposal plant

HMIS Health Ratings (0-4):

Health: 1
Flammability: 3
Physical: 2

3. Composition

Chemical Family:	Nonmetal
Additional Names:	N/A
Calcium silicide (CaSi ₂):	
Percentage:	100 wt%
CAS #:	12013-56-8
EC #:	234-588-7

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Keep patient warm. Seek immediate medical attention.
Ingestion:	Seek immediate medical attention.
Skin:	Immediately wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.

5. Firefighting Measures

Flammability:	Flammable
Extinguishing Media:	Do not use water for fires – use CO ₂ , sand, extinguishing powder.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Keep unprotected persons away. Isolate spill area and provide ventilation. Keep away from ignition sources. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Handle under dry protective gas. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store away from oxidizing agents, water/moisture. Store under dry inert gas. This product is moisture sensitive. Protect from humidity and water. Store apart from materials and conditions listed in section 10.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Respiratory Protection:	Dust Respirator
Protective Gloves:	Nitrile rubber gloves with minimum thickness of 0.11 mm
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Grey
Form:	Crystalline powder
Odor:	N/A
Water Solubility:	Contact with water liberates extremely flammable gases
Boiling Point:	N/A
Melting Point:	1000 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	2.5 g/cc
Molecular weight:	96.25 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts With:	Oxidizing agents, strong acids. Contact with water liberates extremely flammable gases
Incompatible Conditions:	Moisture
Hazardous Decomposition Products:	Metal oxide fume, hydrogen gas, calcium oxide, silicon oxide

11. Toxicological Information

Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause pulmonary fibrosis known as silicosis.
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	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.

12. Ecological Information

Aquatic Toxicity: N/A
Persistent Bioaccumulation Toxicity: N/A
Very Persistent, Very Bioaccumulative: N/A

Do not allow material to be released to the environment without proper government permits.
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Avoid transfer not the environment.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 4.3 Substances which, in contact with water, emit flammable gases
Packing Group: II
UN Number: UN1405
Proper Shipping Name: Calcium silicide

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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