



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

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1. Product and Company Identification

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Trade Name: Calcium fluoride  
Chemical Formula: CaF<sub>2</sub>  
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

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2. Hazards Identification

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Signal Word: Warning



Hazard Statements: H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation

Precautionary Statements: P261 Avoid breathing dust/fume  
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 easy to do. Continue rinsing.  
P302+P352 If on skin: wash with plenty of water  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health: 1  
Flammability: 0  
Reactivity: 1

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3. Composition

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Chemical Family: Salt  
Additional Names: Fluorite, Fluorspar

Calcium fluoride (CaF<sub>2</sub>):  
Percentage: 100 wt%  
CAS #: 7789-75-5  
EC #: 232-188-7

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#### 4. First Aid Procedures

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General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	Symptoms may not appear for several hours. Medical observation is recommended for 48 hours after serious exposure.
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for ten minutes.

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#### 5. Fire and Explosion Hazards Data

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Flammability:	Non-flammable
Flash Point:	N/A
Autoignition Temperature:	N/A
Extinguishing Media:	Use suitable extinguishing agent for surrounding material and type of fire.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

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#### 6. Accidental Release Measures

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If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. 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.

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#### 7. Handling and Storage

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Handling Conditions:	Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store under dry inert gas.
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 TLV.

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#### 8. Exposure Controls and Personal Protection

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Permissible Exposure Limits:	2.5 mg/m <sup>3</sup> as F (USA)
Threshold Limit Value:	2.5 mg/m <sup>3</sup> as F (USA)
Special Equipment:	None
Respiratory Protection:	Dust Respirator, NIOSH approved
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses / goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

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## 9. Physical and Chemical Characteristics

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Color	White
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Soluble
Boiling Point:	~2500 °C
Melting Point:	1403 °C
Density:	3.18 g/cc
Molecular weight:	78.08 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Strong acids, Oxidizing agents, Water
Incompatible Conditions:	Moisture
Haz. Decomposition Products:	Hydrogen fluoride, Calcium oxide

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## 11. Toxicological Information

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### Potential Health Effects:

Eyes:	Causes serious irritation
Skin:	Causes irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A

Routes of Entry:	None
Target Organs:	N/A
Signs & Symptoms of Exposure:	N/A
Medical Conditions Aggravated by Exposure:	N/A

Median Lethal Dose: 4417 mg/kg for rat by mouth

Carcinogen: ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

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## 12. Ecological Information

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Ecological data is not available.

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## 13. Disposal Considerations

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Dispose of in accordance with local, state and federal regulations.

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## 14. Transportation Data

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Hazardous:	Not hazardous for transportation
Hazard Class:	N/A
Packing Group:	N/A
UN Number:	N/A
Proper Shipping Name:	N/A

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### 15. Regulatory Information

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

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### 16. Other Information

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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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