

## MATERIAL SAFETY DATA SHEET

### SECTION I GENERAL INFORMATION

Information provided by: SCHOTT Lithotec AG  
 Address: Otto-Schott-Straße 13, D-07745 Jena  
 Telephone Number: +49 (0) 3641 / 232-201  
 Product Name(s): Calcium Fluoride Crystal  
 Chemical Name: Calcium Fluoride  
 Date effective: July 01, 2006

### SECTION II COMPOSITION / INGREDIENTS DATA

Formula:  $\text{CaF}_2$   
 Composition: >99,99 %  $\text{CaF}_2$

### SECTION III HAZARDS IDENTIFICATION

No hazardous product as specified in Directive 67/548/EEC.

### SECTION IV FIRST AID MEASURES

**Only in case of dust use the following measures:**

After inhalation: fresh air.  
 After skin contact: wash off with plenty of water. Remove contaminated clothing.  
 After eye contact: rinse out with plenty of water with the eyelid held wide open; arrange for medical treatment.  
 After swallowing (large amounts): consult doctor if feeling unwell.

### SECTION V FIRE-Safety Regulations/ Rules

Suitable extinguishing media: In accordance to materials stored in the affected area.  
 Special risks: Non-combustible. Ambient fire may liberate hazardous vapours. The following may develop in event of fire: hydrogen fluoride.  
 Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.  
 Other information: Prevent fire fighting water from entering surface water or groundwater.

## SECTION VI ACCIDENTIAL RELEASE MEASURES

Person-related precautionary measures:	Avoid generation of dust; do not inhale dust.
Procedures for cleaning / absorption:	Spilled product to be removed without using liquid. Forward to disposal. Clean up affected area

## SECTION VII HANDLING AND STORAGE

Handling:	Protect from moisture. No further requirements.
Storage:	Dry. Storage temperature: In view of chemical properties no restrictions.
Attention:	Sudden temperature changes may lead to cracking of the crystal. Fluctuations of the storage temperature should be avoided.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Engineering controls:	Use local exhaust ventilation or good ventilation at the workplace in case of dust formation.
Personal protective equipment:	
Respiratory protection:	required when dust is generated.
Eye protection:	required by machining
Hand protection:	use suitable gloves
Body protection:	protective work clothing
Industrial hygiene:	If contaminated than change clothing. Wash hands after working with substance.

## SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Form:	solid
Colour:	white
Odour:	odourless
pH value at 100 g/l H <sub>2</sub> O (20°C):	~4 (slurry)
Melting point:	1418 °C
Boiling point:	2513 °C
Ignition temperature:	not available
flash point:	not applicable
Explosion limits:	not available
Density (20°C):	3.18 g/cm <sup>3</sup>
Solubility in water (18°C):	0.016 g/l

## SECTION X STABILITY AND REACTIVITY

Conditions to be avoided:	Heating (decomposition).
Substances to be avoided:	acids (release of fluorine, hydrogen fluoride).
Hazardous decomposition products:	in the event of fire: see section V.

## SECTION XI TOXICOLOGICAL INFORMATION

Acute toxicity (studied for powder):	LC <sub>50</sub> (inhalation, rat): >5 mg/l /4h. LD <sub>50</sub> (oral, rat): 4250 mg/kg.
Specific symptoms in animal studies:	Eye irritation test (rabbit): No irritation. Skin irritation test (rabbit): No irritation.
Further toxicological information:	Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

## SECTION XII WASTE DISPOSAL

Follow Federal, State and Local Regulations.

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