

MATERIAL SAFETY DATA SHEET

OPTICAL CRYSTAL

According to Regulation (EC) No.1907/2006 (REACH)

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

DESCRIPTION: Inorganic Crystalline
USAGE: Optical Material
APPEARANCE: Clear transparent solid. No odour

2. HAZARDS IDENTIFICATION

No Hazardous Product as specified in Directive 67/548/EEC

3. FIRST AID MEASURES

EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

SKIN: Wash off thoroughly with soap and water. Gently dry area with clean towel. Remove contaminated clothing and wash clothing before re-use.

INHALATION: Remove to uncontaminated area. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may administer oxygen. Keep affected person warm and at rest. Obtain medical attention.

INGESTION: Induce vomiting if conscious and as directed by a properly qualified personnel. Wash out mouth thoroughly with water.

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS. Obtain Medical Attention Immediately!

4. FIRE FIGHTING MEASURES

FLASH POINT: Not Ignitable. Not Applicable
UNUSUAL FIRE HAZARDS: May evolve toxic fumes in a fire.
EXTINGUISHING MEDIA: As appropriate to the environment

5. ACCIDENTAL RELEASE MEASURES

CONTAMINATION CLEANUP: Wear suitable protective clothing & equipment as listed under Exposure / Personal protection. Take up and containerize for proper disposal. Avoid making dust. Containerize any cleaning materials used for proper disposal.

6. HANDLING AND STORAGE

USAGE PRECAUTIONS: Avoid skin contact. Protect against physical damage and avoid generating dust.

STORAGE PRECAUTIONS: Keep away from foodstuffs. Keep away from acids and strong bases.

7. EXPOSURE CONTROL AND PERSONAL PROTECTION

Protective gloves made of polyvinyl alcohol (PVA) are required. Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation. Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical ventilation, and local exhaust ventilation.

OCCUPATIONAL EXPOSURE LIMITS (OEL) = 2.5 mg/m³ as Fluoride in 8 hour Time Weighted Average (TWA)

8. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :	Clear glassy geometric shapes, no odour.
pH IN AQUEOUS SOLUTION:	Not determined
BOILING POINT	(760mm Hg) ~ 2500oC
MELTING POINT:	1402°C
FLASH POINT:	Not Applicable
FLAMMABILITY:	Not Applicable
EXPLOSIVE PROPERTIES:	Not Applicable
SPECIFIC GRAVITY:	3.18
VAPOUR PRESSURE:	Not Applicable
SOLUBILITY IN WATER:	Practically insoluble; 0.0017mg/100ml H ₂ O at 20°C

9. STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions of storage and use.
HAZARDOUS DECOMPOSITION:	Liberates toxic hydrogen fluoride gas in contact with mineral acid.
MATERIALS TO AVOID:	Acids, Oxidisers, Concentrated Hot Sulphuric Acid

10. TOXICOLOGICAL INFORMATION

TOXIC DOSE - LD50	4250 mg/kg (oral, rat)
CARCINOGENICITY	No evidence of carcinogenic properties
MUTAGENICITY/TERATOGENICITY	No evidence of mutagenic or teratogenic effects
TOXICOLOGICAL FINDINGS	If swallowed causes nausea, vomiting, stomach pains and diarrhoea. Also harmful in contact with skin. Particular care must be exercised when machining and creating dust or particles.

11. ECOLOGICAL INFORMATION

The following applies to inorganic fluorides in general: biological effects: fish: *L. idus* LC50 660mg/l; bacteria: *Ps. putida* toxic from 231 mg/l up; algae: *Sc. quadricauda* toxic from 249mg/l up; protozoa: *E. sulcatum* toxic from 101mg/l up; *U. parduczi* toxic from 71mg/l up (all values as NaF). Hazard to drinking water.

12. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	Chemical residues are generally classified as special waste, and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.
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13. TRANSPORT INFORMATION

Not Subject to Transport Regulations

14. REGULATORY INFORMATION

Hazard Symbols:	None
Risk Phrases:	None
Safety Phrases:	S22-24/25 - Do not breathe dust. Avoid contact with skin and eyes.

15. OTHER INFORMATION

REVISION DATE: Feb 2012	Supercedes issue of June 2007 (Changes in Section: 1, 2, 3, (2 & 3 reversed), 8, 14, 15 The above information is believed to be correct but does not purport to be all inclusive and must be used only as a guide.
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