

Hazard Statements	Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed. Causes serious eye damage.
Precautionary Statements	Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Potassium Fluoride	7789-23-3	232-151-5	01-2119555273-40-XXXX	>99%	Acute Tox. 3 (O), Acute Tox. 3 (D), Acute Tox. 3 (I), Eye Dam. 1

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.
Skin	If calcium gluconate gel is available immediately rub into all affected areas and massage until pain goes. If not wash with soap and water for 30 minutes. OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. OBTAIN MEDICAL ATTENTION.
Ingestion	If conscious give plenty of water to drink. Keep warm and at rest. Do not induce vomiting. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Water spray.
Unsuitable Media	Nothing specified.

5.2 Special hazards arising from the substance or mixture

Hazards	May evolve toxic fumes if involved in a fire.
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5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Evacuate area immediately. Only re-enter area with full protective clothing and breathing apparatus.
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6.2 Environmental precautions

Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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6.3 Methods and material for containment and cleaning up

Major Spillage	Shovel/sweep up into container for removal Cover area of spill with calcium hydroxide then wash to drain with copious amounts of water.
Minor Spillage	Cover area of spill with calcium hydroxide then wash to drain with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Keep well protected from ingress of water and well separated from acids

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits		
			Long Term (8hr TWA)		Short Term 15min period
Potassium Fluoride	7789-23-3	>99%	-	-	2.5 ppm

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to maintain dust concentrations below exposure limits.
Hand Protection	Use PVC gauntlets.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	White crystalline, deliquescent powder.
Odour	Odourless.
pH	8 @ 20°C
Boiling Point	1505°C
Melting Point	846°C
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	1mmHg @ 885°C
Relative Density	2.4810
Water Solubility	96%

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Avoid ingress of water and contact with acids.
10.5	Incompatible Materials	Acids.
10.6	Hazardous Decomposition Products	May give off toxic and acidic fumes in contact with acids or if heated to decomposition.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	Causes serious eye damage.
Skin	Toxic when absorbed through skin. The solid and solutions are irritating to the skin.
LD50 Skin	>2000mg/kg Rat
Ingestion	Ingestion may cause severe internal irritation and damage, nausea, vomiting, abdominal pains and diarrhoea.
LD50 Oral	148.5mg/kg Rat
Inhalation	Inhalation of the dust can result in symptoms similar to those due to ingestion.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	No information is available but unlikely to be a carcinogen.
Mutagenicity	No information is available.
Reproductive Effects	None identified.

Section 12. Ecological

12.1	Toxicity	High concentrations are toxic to aquatic life. LC50, Rainbow trout 5.9-7.5mg/l (as F) 10 day exposure. Plant toxicity; Brown discolouring and shedding of leaves at 5ppb (as F), sensitive at 0.1ppb. Will persist in the form of insoluble fluorides.
	LC50 Algal	43mg/l Algae (48 hours)
	LC50 Crustacea	Not available
	LC50 Fish	108ppm Rainbow trout (96 hours)
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Transfer to a large container and carefully add soda ash and calcium hydroxide at intervals. Decant liquid after 24 hours and neutralise hydrochloric acid, wash to drain with lots of water. The remaining sludge should be removed by a licensed contractor.
Contaminated Packaging	Use a licensed waste disposer.

Section 14. Transport Information

14.1 UN Number	1812
14.2 Proper Shipping Name	Potassium fluoride
14.3 Transport classes	
UN classification	6.1
Subsidiary hazard(s)	None
Transport category	2
ADR Hazard ID	60
Tunnel Restriction Code	E
14.4 Packing Group	III
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	Not transported in bulk.



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 3 (oral); Acute toxicity, category 3 (dermal); Acute toxicity, category 3 (inhalation); Serious eye damage/irritation, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H331, H311, H301, H318
Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed. Causes serious eye damage.

Precautionary Statements P260, P271, P264, P270, P301+P312, P330, P305+P351+P338
Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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