



## Material Safety Data Sheet Potassium Fluoride, 40-50% w/v

### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Potassium Fluoride, 40-50% w/v

**Catalog Numbers:**

LC19100, LC19110

**Synonyms:**

None

**Company Identification:**

LabChem Inc  
200 William Pitt Way  
Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

### Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
7789-23-3	Potassium fluoride	40-50

### Section 3 - Hazards Identification

#### Emergency Overview

**Appearance:** *Clear, colorless solution*

**Warning:** Harmful if inhaled or swallowed. May cause irritation or burns by all exposure routes.  
Long-term exposure may cause bone and joint changes.

**Target Organs:** *Eyes, skin, respiratory system, skeletal system*

#### Potential Health Effects

**Eye:**

Causes eye irritation or burns.

**Skin:**

Causes skin irritation or burns.

**Ingestion:**

Fluoride can reduce calcium levels leading to fatal hypocalcemia. Ingestion may cause salivation, nausea, vomiting, diarrhea, and abdominal pain. Potassium may cause lowered blood pressure, coma, and death.



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**Inhalation:**

Causes respiratory tract irritation or burns. May be fatal as a result of spasm, inflammation, edema of larynx and lungs, and chemical pneumonitis.

**Chronic:**

Chronic inhalation and ingestion may cause fluorosis with skeletal abnormalities. Chronic exposure to fluoride compounds may cause systemic toxicity. May cause dermatitis and conjunctivitis. Intake of more than 6mg of fluoride per day results in fluorosis. Symptoms are weight loss, brittleness of bones, anemia, weakness, stiffness of joints.

### Section 4 - First Aid Measures

**Eyes:**

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

**Skin:**

Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

**Ingestion:**

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Get medical aid at once. If victim is conscious, give soluble calcium in any form (milk, calcium lactate). Concentration of calcium should be 10g/250mL water. Never give anything by mouth to an unconscious person.

**Inhalation:**

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:**

Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Avoid breathing corrosive vapors. Move container if possible; avoid breathing vapors or dust.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**

Not available

**Flash Point:**

Not available

**NFPA Rating:**

CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0

CAS# 7789-23-3: Health- 3, Flammability- 0, Instability- 1

**Explosion Limits:**

Lower: n/a Upper: n/a



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### Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. For large spills, dike far ahead of spill for later disposal. Do not touch spilled material.

### Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.

**Storage:**

Store capped at room temperature. Protect from heat and incompatibles.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits:**

Chemical Name:	ACGIH	NIOSH	OSHA
Water	none listed	none listed	none listed
Potassium fluoride	2.5 mg/m <sup>3</sup> TWA (as F) (listed under Fluorides)	2.5 mg/m <sup>3</sup> TWA (inorganic solids, as F) (listed under Fluorides, inorganic)	2.5 mg/m <sup>3</sup> TWA (as F) (listed under Fluorides)

**OSHA Vacated PELs:**

None.

### Personal Protective Equipment

**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**

Wear appropriate gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.



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### Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>pH:</b>	Acidic
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	Not available
<b>Freezing/Melting Point:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Soluble
<b>Specific Gravity/Density:</b>	1.18-1.22
<b>Molecular Formula:</b>	Not applicable
<b>Molecular Weight:</b>	Not applicable

### Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, excess heat.

**Incompatibilities with Other Materials:**

Strong acids.

**Hazardous Decomposition Products:**

Hydrogen fluoride gas, oxides of potassium.

**Hazardous Polymerization:**

Has not been reported.

### Section 11 - Toxicological Information

**RTECS:**

CAS# 7732-18-5: ZC0110000.

CAS# 7789-23-3: TT0700000.

**LD50/LC50:**

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7789-23-3:

Oral, rat: LD50 = 245 mg/kg.

**Carcinogenicity:**

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7789-23-3: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**

Potassium fluoride is highly toxic by ingestion. Causes irritation to eyes, skin, mucous membranes.

Experimental reproductive effects have been reported.



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**Teratogenicity:**

No information found

**Reproductive:**

Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:**

Mutagenic effects have occurred in experimental animals.

**Neurotoxicity:**

No information found

### Section 12 - Ecological Information

No information found

### Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

### Section 14 - Transport Information

	US DOT 40% w/v	50% w/v
Shipping Name:	Not regulated	Toxic liquid, inorganic, nos. (Potassium fluoride)
Hazard Class:		6.1
UN Number:		UN3287
Packing Group:		PGIII

### Section 15 - Regulatory Information

**US Federal****TSCA:**

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 7789-23-3 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ):**

None of the components are on this list.

**CERCLA/SARA Section 313:**

None of the components are on this list.

**OSHA - Highly Hazardous:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**US State****State Right to Know:**

Potassium fluoride can be found on the following state Right-to-Know lists: New Jersey, California (listed as Fluorides, inorganic), Pennsylvania (listed as Fluorides), Minnesota (listed as Fluorides, inorganic).

**California Regulations:**

None.



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### European/International Regulations

#### Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7789-23-3 is listed on Canada's DSL List.

#### Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7789-23-3 is listed on Canada's Ingredient Disclosure List as Fluorides, inorganic.

### Section 16 - Other Information

MSDS Creation Date: November 29, 1998

Revision Date: October 12, 2009

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