M.S.D.S. & SPECIFICATION Potassium Fluoride

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POTASSIUM FLUORIDE, ANHYDROUS

1. Product Identification

CAS No.: 7789-23-3
Molecular Weight: 58.10
Chemical Formula: KF

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Potassium Fluoride	7789-23-3	90 - 100%	Yes

3. Hazards Identification

Potential Health Effects
There is limited information available on the hazards of this chemical. It is assumed that it will behave similarly to other soluble fluoride salts. If inhaled or swallowed, this compound can cause fluoride poisoning. Early symptoms include nausea, vomiting, diarrhea, and weakness. Later effects include central nervous system effects, cardiovascular effects and death.

Inhalation:
May cause irritation and burns to the respiratory tract, symptoms may include coughing, sore throat, and labored breathing. May be absorbed through inhalation of dust; symptoms may parallel those from ingestion exposure. Irritation and burning effects may not appear immediately.

Ingestion:
May cause salivation, nausea, vomiting, diarrhea, and abdominal pain, followed by weakness, tremors, shallow respiration, cardopedal spasm, convulsions, and coma. May cause brain and kidney damage. Death may be caused by respiratory paralysis. Affects heart and circulatory system.

4. First Aid Measures

Skin Contact:

Wipe off any excess material from skin and then immediately flush skin with large amounts of soapy water. Remove contaminated clothing and shoes. Wash clothing before re-use. Apply bandages soaked in magnesium sulfate. CALL A PHYSICIAN IMMEDIATELY.

5. **Fire Fighting Measures**

Fire: Not considered to be a fire hazard.
Explosion: Not considered to be an explosion hazard.
Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Water spray will also reduce fumes and irritant gases.
Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from acids and alkalis. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
OSHA Permissible Exposure Limit (PEL): 2.5 mg (F)/m3 (TWA)
- ACGIH Threshold Limit Value (TLV): 2.5 mg (F)/m3 (TWA)

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties / Specification

Formula. K.F.

Assay. 99.00 %

Appearance: White powder.

M.W. 58.10

Moisture. 0.5% Max

Formula. K.F.

Odor: Odorless.

Solubility: Appreciable in water.

Boiling Point: 1505C (2741F)

Melting Point: 860C (1580F)

10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Attracts moisture from the air.
Hazardous Decomposition Products: Burning may produce hydrogen fluoride vapors.
Hazardous Polymerization: Will not occur.
Incompatibilities: Platinum plus bromine trifluoride; reacts with strong acids to form hydrogen fluoride. Corrodes glass and porcelain.
Conditions to Avoid: Moisture and incompatibles.

11. Toxicological Information

Ingredient	Known	Anticipated	IARC	Category
Potassium Fluoride	(7789-23-3)	No	No	None

12. Ecological Information

Environmental Toxicity:

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)
Proper Shipping Name: POTASSIUM FLUORIDE
Hazard Class: 6.1
UN/NA: UN1812
Packing Group: III

15. Regulatory Information

Ingredient	TSCA	EC	Japan	Australia
Potassium Fluoride	(7789-23-3)	Yes	Yes	Yes

16. Other Information

NFPA Ratings: Health: 3 Flammability: 0 Reactivity: 0
Label Precautions: Do not get in eyes, on skin, or on clothing.
Do not breathe dust. Keep container closed.
Use only with adequate ventilation. Wash thoroughly after handling.

Label First Aid:
In all cases call a physician immediately. First Aid procedures should be pre-planned for fluoride compound emergencies. If swallowed, administer milk, chewable calcium carbonate tablets or milk of magnesia. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give artificial respiration. In case of skin contact wipe off any excess material then immediately flush skin with large amounts of soapy water. Remove contaminated clothing and shoes. Wash clothing before re-use. Apply bandages soaked in magnesium sulfate. In case of eye contact, immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting upper and lower eyelids occasionally.