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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

POTASSIUM FLUORIDE (Anhydrous) 99% AR

MSDS CAS: 7789-23-3

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: POTASSIUM FLUORIDE (Anhydrous) AR
CAS#: 7789-23-3
Synonym: Not available.
Chemical Name: Potassium Fluoride (Anhydrous) AR
Chemical Formula: KF

Brand: OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification: **OXFORD LAB FINE CHEM LLP**
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Potassium Ferrocyanide AR	7789-23-3	100

Toxicological Data on Ingredients: **Potassium fluoride anhydrous: ORAL (LD50): Acute: 245 mg/kg [Rat].**

Section 3: Hazards Identification

Potential Acute Health Effects: **Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.**

Potential Chronic Health Effects: **CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, the nervous system, heart, gastrointestinal tract, bones, central nervous system (CNS), teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.**

Section 4: First Aid Measures

Eye Contact: **Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.**

Skin Contact: **In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.**

Serious Skin Contact: **Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.**

Inhalation: **If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.**

Serious Inhalation: **Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.**

Ingestion: **If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.**

Serious Ingestion: **Not available.**

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions: Keep container dry. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as acids. May corrode glass. Store in an appropriate container.

Section 7: Handling and Storage (Continued)

Storage: **Keep container tightly closed. Keep container in a cool, well-ventilated area.**

Section 8: Exposure Controls/Personal Protection

Engineering Controls: **Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.**

Personal Protection: **Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.**

Personal Protection in Case of a Large Spill: **Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.**

Exposure Limits: **TWA: 2.5 (mg/m3) [United Kingdom (UK)] TWA: 2.5 (mg/m3) from OSHA (PEL) [United States] Consult local authorities for acceptable exposure limits.**

Section 9: Physical and Chemical Properties

Physical state and appearance:	**Solid. (Deliquescent solid.)**
Odor	**: Not Available.**
Taste	**: Not Available.**
Molecular Weight	**: 58.1 g/mole**
Color	**: White**
pH (1% soln/water)	**: Not Available.**
Boiling Point	**: 1505°C (2741°F)**
Melting Point	**: 859.9°C (1579.8°F)**
Critical Temperature	**: Not applicable.**
Specific Gravity	**: 2.481 (Water = 1)**
Vapor Pressure	**: Not applicable.**
Vapor Density	**: 2 (Air = 1)**
Volatility	**: Not available.**
Odor Threshold	**: Not applicable.**
Water/Oil Dist. Coeff.	**: Not applicable.**

Section 9: Physical and Chemical Properties (Continued)

Ionicity (in Water) : **Not available.**
Dispersion Properties : **See solubility in water.**
Solubility : **Easily soluble in hot water. Soluble in cold water. Solubility in water: 92.3 g/100 ml @ 18 deg. C; 96.4 g/100 ml @ 21 deg. C; very freely soluble in boiling water. Soluble in Hydrogen fluoride, liquid ammonia. Insoluble in alcohol unless water is present.**

Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

Conditions of Instability: **Incompatible materials, moisture from air.**

Incompatibility with various substances: **Reactive with acids.**

Corrosivity: **Corrosive in presence of glass.**

Special Remarks on Reactivity: **Absorbs moisture from the air. Reacts with strong acids to form hydrogen fluoride.**

Special Remarks on Corrosivity: **Not available.**

Polymerization: **Will not occur.**

Section 11: Toxicological Information

Routes of Entry: **Absorbed through skin. Inhalation. Ingestion.**

Toxicity to Animals: **Acute oral toxicity (LD50): 245 mg/kg [Rat].**

Chronic Effects on Humans: **MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, the nervous system, heart, gastrointestinal tract, bones, central nervous system (CNS), teeth.**

Section 11: Toxicological Information (Continued)

Other Toxic Effects on Humans: **Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).**

Special Remarks on Toxicity to Animals: **Not available.**

Special Remarks on Chronic Effects on Humans: **May affect genetic material (mutagenic). May cause adverse reproductive effects.**

Special Remarks on other Toxic Effects on Humans: **Acute Potential Health Effects: Skin: Causes skin irritation. Irritation may be severe with possible burns. It may be absorbed through the skin. Eyes: Causes eye irritation. Irritation may be severe with possible burns. Permanent eye damage may result. Inhalation: May cause irritation of the respiratory tract and mucous membranes with burning pain in the nose and throat, coughing, wheezing, shortness of breath, pulmonary edema. Inhalation of large amounts may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pheumonitis and pulmonary edema. May be absorbed through inhalation of dust. Symptoms may parallel those of ingestion. Ingestion: Harmful if swallowed. It is easily absorbed through the gastrointestinal tract. May cause severe irritation of the gastrointestinal tract with abdominal pain, nausea, vomiting and diarrhea. Other symptoms of acute oral poisoning include: shallow respiration, salivation, nervousness, convulsions, muscle pain, hypotension, Central Nervous System depression, dizziness, weakness, loss of coordination, gastrointestinal tract bleeding, muscle weakness, collapse, breathing difficulty, difficulty speaking, motor unrest, thirst, weak pulse, disturbed color vision, loss of consciousness. May also cause kidney damage. Death usually comes from respiratory paralysis or cardiac failure. Chronic Potential Health Effects: Chronic inhalation and ingeston may cause fluorisis with skeletal abnormalities. Fluorisis is characterized by nausea, vomiting, loss of appetite, diarrhea, constipation, anemia, weakness, brittle bones, stiffness of joints. Can also result in osteosclerosis (an increase of bone density in characteristic patterns. Can also cause discoloration of teeth, and may cause kidney damage Inhalation: Prolonged or repeated inhalation may cause sored in the inner nose.**

Section 12: Ecological Information

Ecotoxicity: **Not available.**

BOD5 and COD: **Not available.**

Products of Biodegradation: **Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.**

Toxicity of the Products of Biodegradation: **The products of degradation are more toxic.**

Special Remarks on the Products of Biodegradation: **Not available.**

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Land transport (ADR-RID)
Proper shipping name: POTASSIUM FLUORIDE, SOLID
UN N°: 1812
H.I. nr: 60
ADR - Class: 6.1
Labelling - Transport: 6.1: Toxic substances.
ADR - Group: III

Sea transport (IMDG) [English only]
Proper shipping name: POTASSIUM FLUORIDE, SOLID
UN N°: 1812
IMO-IMDG - Class or division: 6.1: Toxic substances.
IMO-IMDG - Packing group: III

Air transport (ICAO-IATA) [English only]
Proper shipping name: POTASSIUM FLUORIDE, SOLID
UN N°: 1812
IATA - Class or division: 6.1: Toxic substances.
IATA - Packing group: III

Section 15: Other Regulatory Information

Federal and State Regulations: New Jersey: Potassium fluoride anhydrous TSCA 8(b) inventory: Potassium fluoride anhydrous

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Section 15: Other Regulatory Information (Continued)

Other Classifications:

WHMIS (Canada): **CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).**

DSCL (EEC): **R23/24/25- Toxic by inhalation, in contact with skin and if swallowed. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**

HMIS (U.S.A.):

Health Hazard: 3
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 3
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment: **Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.**

Section 16 - Additional Information

References: **Not available.**

Other Special Considerations: **Not available.**

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