

Potassium Ferricyanide (KFe)
MATERIAL SAFETY DATA SHEET



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1. PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Potassium Ferricyanide (KFe)
CLASSIFICATION: Additive

MANUFACTURER
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2. COMPOSITION/INGREDIENT INFORMATION

Ingredient / CAS Number	Exposure Limits	Concentration
Potassium Ferricyanide CAS #13746-66-2	OSHA PEL: Not established ACGIH TLV: Not established	Trade Secret

3. HAZARDS IDENTIFICATION

HEALTH HAZARDS: Chronic exposure; no information found.
EYE CONTACT: May cause irritation, redness and pain.
SKIN CONTACT: May cause irritation with redness and pain.
INGESTION: doses may cause gastrointestinal upset with nausea, vomiting, diarrhea, and possible cramping.
INHALATION: may cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

4. FIRST AID MEASURES

EYES: Immediately flush with water for a minimum of 15 minutes. Get attention if irritation persists.
SKIN: Remove contaminated clothing; flush the skin with water for a minimum of 15 minutes. Wash thoroughly with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.
INHALATION: Remove to fresh air. Get medical attention for any breathing difficulty.
INGESTION: Induce vomiting. Give milk of magnesia and large amounts of water to drink. Seek medical attention. Never give anything by mouth to an unconscious or convulsing person.

5. FIRE AND EXPLOSION HAZARDS

FLASH POINT: Not applicable.
FLAMMABLE LIMITS IN AIR: Not applicable.
EXTINGUISHING MEDIA: Water, dry foam.
SPECIAL FIRE FIGHTING PRECEDURES: In the event of a fire, wear full protective clothing and NIOSA-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode. May emit toxic and flammable fumes of cyanide if involved in a fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition may cause the evolution of toxic cyanide fumes.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Avoid all contact with the product by ingestion, inhalation or contact with the skin, eyes, and clothing. Wear appropriate personal protective equipment. Large amounts, keep people away from and upwind of spill/leak.

SMALL SPILLS: Soak up with inert absorbent material and collect in a waste container for disposal.

LARGE SPILLS: Do not allow to dry. Dam up. Take up mechanically and collect in suitable container for disposal. The reactivity can be reduced by diluting 1/1 (volume) with water. Clean contaminated surface thoroughly with large amounts of water.

ENVIRONMENTAL: Do not allow material to contaminate surface or ground water. Prevent product from entering drains.

7. HANDLING AND STORAGE

HANDLING: Use only in well ventilated areas, unless used with recommended respiratory protection. 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.

STORAGE: Keep in a tightly closed container. Store in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Protect from light.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS: General and/or local exhaust ventilation that airborne concentrations remain below the maximum exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear splash goggles.

SKIN: Wear chemically resistant boots and gloves.

RESPIRATORY: If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved full-face piece respirator, half-face piece respirator with splash goggles, or powered, filtered air-supplied hood.

OTHER PROTECTIVE EQUIPMENT: Provide eyewash fountain and quick drench facilities in close proximity to points of potential exposure.

HYGIENE PRACTICES: Wash with soap and water after handling. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Red odorless crystalline powder

pH: ~6 (5% aq. Sol.)

FREEZING POINT: Not available

MELTING POINT: 200°C Decomposes

BOILING POINT: Not available

VAPOR PRESSURE: Not available

SOLUBILITY IN WATER: 464 g/l water (20°C)

DECOMPOSITION TEMPERATURE: >200°C

SPECIFIC GRAVITY/DENSITY: 1.8500 g/cm³

10. STABILITY AND REACTIVITY

STABILITY: Stable in sealed containers under normal conditions.

CONDITIONS TO AVOID: Avoid temperatures above 38°C and below freezing point (crystallization).

MATERIALS TO AVOID: Acids, reducing agents, oxidizing agents, initiators.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce ammonia, carbon oxides, nitrogen oxides (NO_x).

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY: This material is not listed as a potential carcinogen by OSHA, IARC, NTP, ACGIH, and NIOSH.

ACUTE ORAL LD50 (rat): 3,503 mg/kg

12. ECOLOGICAL INFORMATION**LC50**

Fathead Minnow: 100 mg/L

Water Flea: 80 mg/L

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Not regulated

HAZARD CLASS: None

UN NUMBER: Not applicable

PACKING GROUP: Not applicable

LABEL: Not applicable

PLACARD: Not applicable

NMFC (NATIONAL MOTOR FREIGHT CARRIERS)

FREIGHT CLASS: 85

15. REGULATORY INFORMATION**SARA TITLE III**

SECTION 302: Not listed

SECTION 313: Not listed

TSCA REGULATORY: All components of this product are either on the TSCA Inventory or exempt.

RCRA STATUS: Not listed

CERCLA: Not listed

16. OTHER INFORMATION

The information on this MSDS is accurate to the best of Avanti International's knowledge. Avanti International makes no expressed or implied warranty, and in no case shall be liable for consequential, special, or indirect damages resulting from the use or handling of this product.