

Safety Data Sheet

Potassium Ferricyanide

Section 1 - Chemical Product and Company Identification

SDS Name: Potassium Ferricyanide

Catalog Numbers: J-604-1A

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H319-Serious eye damage/eye irritation: 2A

H401-Hazardous to the aquatic environment, acute hazard: 2

H411-Hazardous to the aquatic environment, long-term hazard: 2

Consists of unknown acute inhalation toxicity.

Pictograms or Hazard Symbols and Hazard Statement(s):



Signal Word: Warning

Hazard Statements:

H319-Causes serious eye irritation

H401-Toxic to aquatic life

H411-Toxic to aquatic life with long lasting effects

Precautionary Statements:

P264-Wash thoroughly after handling.

P273-Avoid release to the environment.

P280-Wear eye protection/face protection.

P305+P351+P338-If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313-If eye irritation persists: Get medical advice/attention.

P391-Collect spillage.

P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
13746-66-2	Potassium Ferricyanide (Potassium Hexacyanoferrate (III))	≥99

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Oral Exposure: If swallowed, seek medical advice. Rinse mouth with water and, after rinsing, drink water (stop if the exposed person feels sick as vomiting may be dangerous).

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

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. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Carbon oxides, iron oxides, nitrogen oxides, potassium oxides, hydrogen cyanide (hydrocyanic acid), irritating and toxic fumes and gases.

Flash Point: Not applicable

Autoignition Temperature: Not auto-flammable

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Note: Contact with acids liberates very toxic gas. Heating can release toxic gas.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment as necessary. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Avoid dust formation. Ensure adequate ventilation.

Methods for Cleaning up: Carefully sweep up and containerize for proper disposal. Avoid dust generation and accumulation. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment as necessary. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed container. Store in a cool, dry, and well-ventilated area. Protect from direct sunlight. Do not store near acids. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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 protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - PELs
Potassium Ferricyanide CAS#13746-66-2	1 mg/m ³ TWA	1 mg/m ³ TWA 25 mg/m ³ IDLH	1 mg/m ³ TWA (vacated) 5 mg/m ³ TWA (vacated)

Section 9 - Physical and Chemical Properties
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Physical State: Crystalline solid

Appearance: Orange-red

Odor: Odorless

Vapor Pressure: Not available

Odor Threshold: Not available

Vapor Density: Not available

pH: Approx. 8.4-9.3 (20% aqueous solution)

Relative Density: Not available

Melting point/freezing point: Not available

Solubility: Soluble in water

Boiling Point: Not available

Flash Point: Not applicable

Evaporation Rate: Not available

Flammability (solid, gas): Not available

Partition coefficient: n-octanol/water: Not applicable

Autoignition Temperature: Not auto-flammable

Decomposition Temperature: >200°C (392°F)

Viscosity: Not applicable

Specific Gravity/Density: 1.89 g/cm³

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, excess heat, and ignition sources. Exposure to light. Exposure to moisture.

Incompatibilities with Other Materials: Strong acids, acid fumes, strong oxidizing agents, ammonia, chromium trioxide + heat, cupric nitrate, and sodium nitrate + heat.

Hazardous Decomposition Products: Carbon oxides, iron oxides, nitrogen oxides, potassium oxides, hydrogen cyanide (hydrocyanic acid), irritating and toxic fumes and gases.

Note: Contact with acids liberates very toxic gas. Heating can release toxic gas.

Section 11 - Toxicological Information

CAS#13746-66-2 Potassium Ferricyanide: RTECS#: LJ8225000

LD50 Oral: >5110 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

Serious eye damage/eye irritation: eyes (rabbit), causes eye irritation.

Carcinogenicity: Potassium Ferricyanide CAS#13746-66-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.

Teratogenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects: Not available.

Neurotoxicity: Not available.

Mutagenicity: Not available.

Specific Target Organ Toxicity, Single Exposure: Not available.

Specific Target Organ Toxicity, Repeated Exposure: Not available.

Symptoms associated with exposure: Causes serious eye irritation. Overexposure may cause nausea, vomiting, diarrhea, and cramping. Overexposure to skin may cause dermatitis, skin ulcers, redness, irritation, and pain. Overexposure by inhalation may cause respiratory tract irritation, cough, shortness of breath, prolonged anoxia, and CNS damage. Symptoms of overexposure may include weakness, headache, and confusion. Continued overexposure may cause irregular heartbeat.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Toxic to aquatic life with long lasting effects.

CAS#13746-66-2 Potassium Ferricyanide:

LC50, freshwater fish: 869 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

LC50, freshwater fish: >100 mg/L 96h (pimephales promelas)(fathead minnow)

LC50, freshwater fish: >100 mg/L 96h static (cyprinus carpio)(carp)

EC50, water flea: 59 mg/L 48h static (daphnia magna)

EC50, algae: 3.1 mg/L 72h static (pseudokirchneriella subcapitata)(green algae)

EC50, bacteria: >1000 mg/L (activated sludge)

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

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

Section 14 – Transport Information

DOT

Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 3-8-24

Revision #1: 1-5-26

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