

# Safety Data Sheet

## Potassium Ferrocyanide, 4% Aqueous

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Potassium Ferrocyanide, 4% Aqueous

**Catalog Numbers:** SO-730

**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

Based on available data, the GHS classification criteria are not met.

4% of the mixture consists of ingredients of unknown acute dermal toxicity.

4% of the mixture consists of ingredients of unknown acute inhalation toxicity.

#### Pictograms or Hazard symbols and Hazard statement(s):

No GHS Hazard Symbols.

#### Hazard Statements:

No GHS Hazard Statements.

#### Precautionary Statements:

No GHS Precautionary Statements.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
14459-95-1	Potassium Ferrocyanide Trihydrate (Potassium Hexacyanoferrate(II) Trihydrate)	4 w/v
7732-18-5	Water	balance

## 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 immediate medical advice.

**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 advice.

**Oral Exposure:** If swallowed, get immediate medical advice.

**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 and highly toxic gases may be generated by thermal decomposition or combustion. Contact with acids liberates very toxic gas.

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

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

**Flash Point:** Not available

**Autoignition Temperature:** Not available

**Explosion Limits, Lower:** Not available

**Upper:** Not available

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

## Section 6 - Accidental Release Measures

**Procedure(s) of Personal Precaution(s):**

Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

**Methods for Cleaning up:** Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

## Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Store in a tightly closed container in a cool, dry, and well-ventilated area. Store away from acids. Protect from direct sunlight. Protect from heat. Keep away from incompatible materials.

**Note: Contact with acids may liberate toxic cyanide fumes.**

## 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 - Final PELs
Potassium Ferrocyanide Trihydrate CAS#14459-95-1	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA 25 mg/m <sup>3</sup> IDLH	1 mg/m <sup>3</sup> TWA (vacated) 5 mg/m <sup>3</sup> TWA (vacated)

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Yellow

**Odor:** Odorless

**Vapor Pressure:** Not available

**Odor Threshold:** Not available

**Vapor Density:** Not available

**pH:** Approx. 7.0-9.0

**Relative Density:** Not available

**Melting point/freezing point:** Not available

**Solubility:** Soluble in water

**Boiling Point:** Not available  
**Flash Point:** Not available  
**Evaporation Rate:** Not available  
**Flammability (solid, gas):** Not available  
**Partition coefficient: n-octanol/water:** Not available  
**Autoignition Temperature:** Not available  
**Decomposition Temperature:** Not available  
**Viscosity:** Not available  
**Specific Gravity/Density:** Not available

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, excess heat, direct sunlight. Contact with acids liberates very toxic gas.  
**Incompatibilities with Other Materials:** Oxidizing agents, acids.  
**Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, potassium oxides, iron oxides, hydrogen cyanide (hydrocyanic acid), irritating and toxic fumes and gases.

## Section 11 - Toxicological Information

**CAS#14459-95-1 Potassium Ferrocyanide Trihydrate:**

LD50 Oral: 3613 mg/kg (rat)  
LD50 Dermal: Not available  
LC50 Inhalation: Not available

**Carcinogenicity:** Potassium Ferrocyanide Trihydrate CAS#14459-95-1 is not listed by IARC, NTP, ACGIH, or OSHA.

Note: Potassium Ferrocyanide may expose you to hydrogen cyanide and cyanide salts, which are listed by California Prop. 65 (reproductive toxicity).

**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:** Overexposure to skin may cause irritation, redness, allergic skin reaction. Ingestion may cause abdominal pain, nausea, vomiting, cramping, diarrhea. Eye contact may cause irritation.

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

Section 12 - Ecological Information

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

**CAS#14459-95-1 Potassium Ferrocyanide Trihydrate:**

LC50, freshwater fish: 28.7-37.9 mg/L 96h (oncorhynchus mykiss)(rainbow trout)

**Persistence and degradability:** Not readily biodegradable.

**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:** 2-15-1990

**Revision #1:** 5-2-14 YM

**Revision #2:** 5-10-23

**Revision #3:** 1-5-26

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