

Safety Data Sheet

Potassium Ferrocyanide Crystals

Section 1 - Chemical Product and Company Identification

SDS Name: Potassium Ferrocyanide Crystals

Catalog Numbers: SO-705

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

H303-Acute toxicity, oral: 5

Consists of ingredients of unknown acute dermal toxicity.

Consists of ingredients of unknown acute inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Warning

Hazard Statements:

H303-May be harmful if swallowed

Precautionary Statements:

P301+P312-If swallowed: Call a Poison Center/doctor if you feel unwell.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
14459-95-1	Potassium Ferrocyanide Trihydrate (Potassium Hexacyanoferrate(II) Trihydrate)	100

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. Seek 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. Seek medical advice.

Oral Exposure: If swallowed, seek 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: 1

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. Avoid dust formation.

Methods for Cleaning up: Carefully sweep up and containerize for proper disposal. Avoid dust formation. 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. Minimize dust formation and accumulation. 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 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

Physical State: Solid, crystalline
Appearance: Yellow
Odor: Odorless
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: 8.0-10.0 at 211 g/L at 25°C (77°F)
Relative Density: Not available
Melting point/freezing point: 70°C (158°F)
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 applicable
Decomposition Temperature: >70°C
Viscosity: Not available
Specific Gravity/Density: 1.85 g/cm³

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, excess heat, direct sunlight. Avoid dust formation. 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. Inhalation may irritate respiratory tract. Symptoms may include coughing and shortness of breath.

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. Harmful to aquatic life. May cause long-term adverse effects to the environment.

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: 1-8-10

Revision #1: 12-2-14 RC

Revision #2: 11-4-20

Revision #3: 5-10-23

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