

Safety Data Sheet

Potassium Ferrocyanide, Trihydrate



Section 1 Product Description

Product Name: Potassium Ferrocyanide, Trihydrate
Recommended Use: Science education applications
Synonyms: Potassium Hexacyanoferrate (II), Trihydrate;
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Causes eye irritation. Harmful to aquatic life with long lasting effects.

GHS Classification:

Serious Eye Damage/Eye Irritation Category 2B, Skin Corrosion/Irritation Category 3, Hazardous to the aquatic environment - Chronic Category 3

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Potassium Ferrocyanide, Trihydrate	14459-95-1	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products: Hydrogen cyanide, Nitrogen containing gases

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Avoid the generation of dusts during clean-up.

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Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Avoid release to the environment. Do not breathe dust/vapor. Do not get in eyes on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.

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

Storage Code: Store away from light. Material is photodegradable.
Green - general chemical storage

Section 8 Protection Information

Chemical Name	ACGIH	OSHA PEL
	(TWA)	(TWA)
	(STEL)	(STEL)
Potassium Ferrocyanide, Trihydrate	1 mg/m3 TWA (as Fe)	5 mg/m3 TWA (as CN)
	N/A	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

Respirator Type(s): Wear chemical splash goggles when handling this product. Have an eye wash station available.

Eye Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Skin Protection:

Gloves: No information available

Section 9 Physical Data

Formula: K ₄ Fe(CN) ₆ ·3H ₂ O	Vapor Pressure: No data available
Molecular Weight: 422.41	Evaporation Rate (BuAc=1): No data available
Appearance: Yellow Crystalline Solid	Vapor Density (Air=1): No data available
Odor: None	Specific Gravity: 1.85
Odor Threshold: No data available	Solubility in Water: Soluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: > 70 C	Autoignition Temperature: No data available
Boiling Point: No data available	Decomposition Temperature: > 400 C
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: No data available	Percent Volatile by Volume: No data available

Section 10 Reactivity Data

Reactivity: Mildly reactive - See below

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Contact with incompatible materials may liberate highly toxic gas. Exposure to light.

Incompatible Materials: Acids, Strong oxidizing agents

Hazardous Decomposition Products: Hydrogen cyanide, Nitrogen containing gases

Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Symptoms (Acute): No data available

Delayed Effects: No data available

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Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Ferrocyanide, Trihydrate	14459-95-1	Oral LD50 Rat 3616 mg/kg	Not determined	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Potassium Ferrocyanide, Trihydrate	14459-95-1	Not listed	Not listed	Not listed

Chronic Effects:

Mutagenicity:	No evidence of a mutagenic effect.
Teratogenicity:	No evidence of a teratogenic effect (birth defect).
Sensitization:	No evidence of a sensitization effect.
Reproductive:	No evidence of negative reproductive effects.
Target Organ Effects:	
Acute:	No data available
Chronic:	No data available

Section 12

Ecological Data

Overview:	Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Potassium Ferrocyanide, Trihydrate	14459-95-1	Not available

Section 13

Disposal Information

Disposal Methods:	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s):	Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name: Not regulated for transport by US DOT.	Air - IATA Proper Shipping Name: Not regulated for air transport by IATA.
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Section 15

Regulatory Information

TSCA Status:	All components in this product are on the TSCA Inventory.					
Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Potassium Ferrocyanide, Trihydrate	14459-95-1	No	No	No	No	No

Section 16

Additional Information

Revised: 09/09/2015	Replaces: 06/02/2015	Printed: 10-29-2015
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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

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ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health