

# SAFETY DATA SHEET

Creation Date 10-Aug-2009

Revision Date 19-Dec-2025

Revision Number 9

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

<b>Product Name</b>	Potassium ferricyanide
<b>Cat No. :</b>	P232-500
<b>CAS No</b>	13746-66-2
<b>Synonyms</b>	Potassium prussiate; Everitt's salt; Prussiate of potash (Crystalline/Certified ACS)
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

#### Emergency Telephone Number

CHEMTRIC®, Inside the USA: 800-424-9300  
CHEMTRIC®, Outside the USA: 001-703-527-3887

## 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Serious Eye Damage/Eye Irritation

Category 2

### Label Elements

**Signal Word**  
Warning

**Hazard Statements**  
Causes serious eye irritation

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear eye/face protection

**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

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects  
Contact with acids liberates very toxic gas

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200****Hazards resulting from a reaction with other chemicals under normal conditions of use**

Contact with acids liberates very toxic gas.

**3. Composition/information on Ingredients**

Component	CAS No	Weight %
Potassium ferricyanide	13746-66-2	<=100

**4. First-aid measures**

<b>General Advice</b>	If symptoms persist, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	Treat symptomatically

**5. Fire-fighting measures**

**Unsuitable Extinguishing Media** No information available

**Flash Point** Not applicable

<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	
Upper	No data available
Lower	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**

Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous Combustion Products**

Potassium oxides. Hydrogen cyanide (hydrocyanic acid). Carbon oxides. Nitrogen oxides (NOx).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

Health	Flammability	Instability	Physical hazards
4	0	0	N/A

**6. Accidental release measures**

**Personal Precautions** Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

**Environmental Precautions** Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

**7. Handling and Storage**

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid ingestion and inhalation. Do not get in eyes, on skin, or on clothing.

**Storage.** Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from direct sunlight. Incompatible Materials. Strong oxidizing agents. Acids.

**8. Exposure controls / personal protection****Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Potassium ferricyanide	TWA: 1 mg/m <sup>3</sup>	(Vacated) TWA: 1 mg/m <sup>3</sup> (Vacated) TWA: 5 mg/m <sup>3</sup>	IDLH: 25 mg/m <sup>3</sup> REL = 1 mg/m <sup>3</sup> (TWA)	TWA: 1 mg/m <sup>3</sup>

**Legend**

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment**

**Eye/face Protection** 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.

<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance**

<b>Physical State</b>	Crystalline Solid
<b>Color</b>	Orange - Red
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>Property</b>	<b>Values</b>
<b>Melting Point/Range</b>	No data available
<b>Softening Point</b>	No data available
<b>Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Flammability (liquid)</b>	Not applicable
<b>Flammability (solid,gas)</b>	No information available
<b>Explosion Limits</b>	No data available

**Remarks****• Method**

<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	> 200°C
<b>pH</b>	~ 6
<b>Viscosity</b>	Not applicable
<b>Water Solubility</b>	464 g/L (20°C)
<b>Solubility in other solvents</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	
<b>Vapor Pressure</b>	negligible
<b>Density / Specific Gravity</b>	1.86 g/cm³
<b>Bulk Density</b>	1.05 kg/m³
<b>Vapor Density</b>	Not applicable
<b>Particle characteristics</b>	No data available

**Method** - No information available

Solid

**Other Information**

<b>Molecular Formula</b>	C6 Fe K3 N6
<b>Molecular Weight</b>	329.26
<b>Evaporation Rate</b>	Not applicable - Solid

## 10. Stability and reactivity

**Reactive Hazard**

Yes

**Stability**

Stable under normal conditions. Sensitivity to light.

**Conditions to Avoid**

Avoid dust formation. Incompatible products. Excess heat. Exposure to light.

**Incompatible Materials**

Strong oxidizing agents, Acids

**Hazardous Decomposition Products** Potassium oxides, Hydrogen cyanide (hydrocyanic acid), Carbon oxides, Nitrogen oxides (NOx)

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** Contact with acids liberates toxic gas.

## 11. Toxicological information

### Information on expected route of exposure

Inhalation	Not an expected route of exposure.
Ingestion	May be harmful if swallowed.
Eyes	Avoid contact with eyes.
Skin	Avoid contact with skin. Harmful in contact with skin.

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium ferricyanide	LD50 = 2,970 mg/kg (Mouse)	-	-

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**

Respiratory	No data available
Skin	No data available

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Potassium ferricyanide	13746-66-2	Not listed				

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** None known.

**(j) aspiration hazard;** Not applicable  
Solid

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Symptoms / effects,both acute and delayed** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Potassium ferricyanide	Not listed	Onchorhynchus mykiss: LC50: 869 mg/L/96	Not listed	Daphnia magna: EC50: 549 mg/L/48h

**Persistence and Degradability** Persistence is unlikely Soluble in water based on information available.

**Bioaccumulation/ Accumulation** No information available.

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

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT**

**UN-No** UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** (POTASSIUM HEXACYANOFERRATE(III))

**Hazard Class** 9  
**Packing Group** III

**TDG**

**UN-No** UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** (POTASSIUM HEXACYANOFERRATE(III))

**Hazard Class** 9  
**Packing Group** III

**IATA**

**UN-No** UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** (POTASSIUM HEXACYANOFERRATE(III))

**Hazard Class** 9  
**Packing Group** III

**IMDG/IMO**

**UN-No** UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** (POTASSIUM HEXACYANOFERRATE(III))

**Hazard Class** 9  
**Packing Group** III

## 15. Regulatory Information

### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Potassium ferricyanide	13746-66-2	X	ACTIVE	-

Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)  
 X - Listed  
 '-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

#### **International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Potassium ferricyanide	13746-66-2	X	-	237-323-3	X	X	X	X	X	KE-34764

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### **U.S. Federal Regulations**

##### **SARA 313**

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Potassium ferricyanide	13746-66-2	<=100	1.0 %	-

##### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

##### **CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Potassium ferricyanide	-	-	X	X

##### **Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Potassium ferricyanide	X		-

**OSHA - Occupational Safety and Health Administration** Not applicable

##### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

##### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

##### **U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium ferricyanide	-	X	X	X	X

##### **U.S. Department of Transportation**

Reportable Quantity (RQ): N  
 DOT Marine Pollutant N Y  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### Other International Regulations

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Potassium ferricyanide	13746-66-2	-	-	-

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Potassium ferricyanide	13746-66-2	Not applicable	Not applicable	Not applicable	Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

#### Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Potassium ferricyanide	13746-66-2	Not applicable	Not applicable	Not applicable	Annex I - Y33

### 16. Other Information

**Prepared By** Product stewardship (Regulatory Affairs)  
 Thermo Fisher Scientific  
 email - begel.sdsdesk@thermofisher.com

**Creation Date** 10-Aug-2009  
**Revision Date** 19-Dec-2025  
**Print Date** 19-Dec-2025  
**Revision Summary** Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information

---

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**