

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Potassium Ferrocyanide Trihydrate

CAS number 14459-95-1

Synonyms Potassium Hexanoferrate (II)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
12501 Pauls Valley Road
Austin, Texas 78737
U.S.A.

Telephone 512-668-9918

Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not hazardous

2.2 GHS Label elements, including precautionary statements

Pictogram None required

Signal Word Not applicable

Hazard statements None required

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Harmful to aquatic life with long lasting effects

WARNING: cancer and reproductive harm - <https://www.p65warnings.ca.gov/>.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Potassium Ferrocyanide Trihydrate	Potassium Hexanoferrate (II)	15559-95-1	>95%
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	-	13943-58-3	-

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

In case of skin contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

In case of eye contact Rinse off immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

If swallowed If swallowed, DO NOT induce vomiting. Obtain medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable extinguishing media

No information available

5.2 Specific hazards arising from the substance or mixture

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

5.3 Special 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.

5.4 Further information

No information available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with eyes, skin, or clothing.

6.2 Environmental precautions

Avoid release to the environment. See section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes, or clothing. Avoid ingestion and inhalation.

Hygiene measures

No information available

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect from direct sunlight.

Incompatibilities

Acids. Strong oxidizing agents. Strong acids.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Potassium Ferrocyanide Trihydrate	TWA	1 mg/m ³ 5 mg/m ³
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	TWA	1 mg/m ³ 5 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Potassium Ferrocyanide Trihydrate	TWA	1 mg/m ³
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	TWA	1 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Potassium Ferrocyanide Trihydrate	IDLH	25 mg/m ³
Potassium Ferrocyanide Trihydrate	TWA	1 mg/m ³
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	IDLH	25 mg/m ³
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	TWA	1 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

None under normal use conditions

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 Safety EN166

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection

Wear appropriate protective clothing to prevent skin exposure.

Respiratory protection

No protective equipment is needed under normal use conditions.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical State	Powder solid
Appearance	Yellow
Odor	Odorless
Odor Threshold	No information available
pH	9.5 @ 25C 100 g/l aq.sol
Melting Point/Range	70 C / 158 F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	No information available
Vapor Pressure	Negligible
Vapor Density	Not applicable
Density	1.85
Solubility	Soluble
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	Not applicable
Decomposition Temp	> 70 C
Viscosity	Not applicable
Molecular Formula	C6FeK4N6.3H2O
Molecular Weight	422.4
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

None known, based on information available

10.2 Chemical stability

Stable under normal conditions. Light sensitive.

10.3 Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Acids, Strong oxidizing agents, Strong acids

10.6 Hazardous decomposition products

Nitrogen oxides, Hydrogen cyanide, Heavy metal oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	3613 mg/kg (Rat)

Skin corrosion/irritation

No information available

Serious eye damage/eye irritation

No information available

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Potassium Ferrocyanide Trihydrate	14459-95-1	Not listed	Not listed	Not listed	Not listed	Not listed
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	13943-58-3	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known

Specific target organ toxicity - repeated exposure

None known

Reproductive toxicity

No information available

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information**12.1 Toxicity**

This product contains substance(s) which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Product		Species	Test Results
Ferrate(4-), hexakis(cyano-C)-, tetrapotassium, (OC-6-11)-	LC50	Freshwater fish (<i>Pimephales promelas</i>)	100 mg/L - 96h 19 mg/L - 96h

12.2 Persistence and degradability

May persist based on information available

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

Will likely be mobile in environment due to water solubility.

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

No information available

SECTION 13: Disposal considerations**13.1 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.

SECTION 14: Transport information

DOT (US) Not listed

IMDG Not listed

IATA Not listed

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
See section 2 for more information

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act
Not regulated

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Not regulated

Food and Drug Administration (FDA)

Not regulated

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

US. Pennsylvania Worker and Community Right-to-Know Law

Listed

California Proposition 65

Listed

SECTION 16: Other information

Revision date: 06/17/2024

Revision number: 0

SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.