



HazTech Systems, Inc.

SAFETY DATA SHEET

Revision number: 2
Revision date: 05/07/2015

1. IDENTIFICATION

Product name: Potassium hexacyanoferrate(II) trihydrate
Product code: RE2306
Synonyms: Yellow prussiate, Potassium ferrocyanide
CAS: 14459 -95 -1
RTECS # Not available
CI#: Not available
Recommended use: Laboratory chemicals, Manufacture of substances
Uses advised against: No information available

Company:

HazTech Systems, Inc.
3919 Bootjack Lane
Mariposa, CA 95338 U.S.A.
Telephone:
1-800-543-5487 / 1-209-966-8088
Fax:
1-209-966-8089
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sales@hazcat.com
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Chemical Emergencies:

HazTech Systems, Inc. (8:00am - 5:00pm) PST
1-800-543-5487
Transportation Emergencies:
Chemtrec 24-Hour
1-800-424-9300 (U.S.A.)
1-703-527-3887 (International)

2. HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

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

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram none required
Signal word none required
Hazard statement(s)
H412 Harmful to aquatic life with long lasting effects.
Precautionary statement(s)
P273 Avoid release to the environment.
P501 Dispose of contents/ container to an approved waste disposal plant.

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

Contact with acids liberates very toxic gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : $C_6FeK_4N_6 \cdot 3H_2O$
Molecular Weight : 422.39 g/mol
CAS -No. : 14459 -95 -1
EC-No. : 237 -722 -2

Hazardous components

Component	Classification	Concentration
Tetrapotassium hexacyanoferrate	Aquatic Acute 3; Aquatic Chronic 3; H412	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Description of first aid measures

General advice

Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Dry powder

Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Potassium oxides, Iron oxides, Hydrogen cyanide (hydrocyanic acid)

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage. Do not store near acids.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material : Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time : 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material : Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time : 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- | | |
|---|---|
| a) Appearance | Form : crystalline
Colour : light yellow |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | 8.0 - 10 at 211 g/l at 25 °C (77 °F) |
| e) Melting point/freezing point | Melting point/range : 70 °C (158 °F) - lit. |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | 1.850 g/cm ³ |
| n) Water solubility | 211 g/l at 20 °C (68 °F) |
| o) Partition coefficient: n - octanol/water | no data available |

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|------------------------------|-------------------|
| p) Auto-ignition temperature | no data available |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties | no data available |
| t) Oxidizing properties | no data available |

Other safety information

Bulk density 1,200 kg/m³

10. STABILITY AND REACTIVITY

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Conditions to avoid

Avoid temperatures above 60°C, direct sunlight and contact with sources of heat. Contact with acids liberates very toxic gas.

Incompatible materials

Acids, Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 3,613 mg/kg

Inhalation : no data available

Dermal : no data available

Skin corrosion/irritation

Skin - rabbit

Result : No skin irritation

(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - rabbit

Result : Mild eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitisation

- guinea pig

Result : Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

no data available

Carcinogenicity

Did not show carcinogenic effects in animal experiments.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

11. TOXICOLOGICAL INFORMATION

Aspiration hazard

no data available

Additional Information

RTECS : Not available

May cause cyanosis.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Toxicity to daphnia and EC50 - Daphnia - 32 mg/l - 48 h

other aquatic Remarks : anhydrous

invertebrates

Persistence and degradability

Biodegradability Result : - Not readily biodegradable.

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Tetrapotassium hexacyanoferrate	14459 -95 -1	1990 -01 -01
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New Jersey Right To Know Components

Tetrapotassium hexacyanoferrate	CAS -No.	Revision Date
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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

HMIS Rating

Health hazard :	0
Chronic Health Hazard :	*
Flammability :	0
Physical Hazard	0

NFPA Rating

Health hazard :	0
Fire Hazard :	0
Reactivity Hazard :	0

Revision Date: 05/07/2015

Prepared by: HazTech Systems, Inc.

This information is based on HazTech Systems, Inc.'s, current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product