

SDS Potassium Ferricyanide (III)

Date of Issue: 11/07/2019

Expiry: 01/08/2024

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP Limited**
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Product	Potassium Ferricyanide	Code	42101, 42108, PA025, PL025, 5359			
CAS#	HSNO#	UN #	DG Class/es	Packing group #	Tracking?	Handlers Certificate?
13746-66-2	HSR007443	NA	NA	NA	No	No

Recommended use: Laboratory Investigations

2. Hazards identification

2.1 GHS Classification

Acute toxicity, Oral (Category E), H303

2.2 GHS Label elements, including precautionary statements

Pictogram N/A

Signal word **Warning**

Hazard statement(s)

H303 May be harmful if swallowed.

Precautionary statement(s)

Response

P312 Call a POISON CENTER/doctor if you feel unwell.

2.3 Other hazards

Contact with acids liberates very toxic gas.

3. Composition/information on ingredients

Substance/Mixture: Substance

3.1 Substances

Synonyms:

Potassium hexacyanoferrate(III)

Red prussiate

Formula: $K_3Fe(CN)_6$

Molecular weight: 329.26 g/mol

CAS-No.: 13746-66-2

Components	Classification	Concentration
Tripotassium hexacyanoferrate		
	6.1 E; H303	<= 100%

4. First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

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. Consult a physician.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), potassium oxides, iron oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Tripotassium hexacyanoferrate	13746-66-2	WES-TWA	5 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
	Remarks	Skin absorption		
		WES-TWA	1 mg/m ³	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

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

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Body Protection

Complete suit protecting against chemicals. 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 or 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.

Control of environmental exposure

Do not let product enter drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

Form: powder

b) pH

6.0 - 9 at 329 g/l at 25 °C

c) Relative density

1.890 g/cm³

d) Water solubility

329 g/l at 20 °C - completely soluble

10. Stability and reactivity

10.1 Reactivity

Contact with acids liberates very toxic gas.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Incompatible materials

Strong acids, Strong oxidizing agents, Ammonia, hydrochloric acid, Cyanides

10.4 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions

Carbon oxides, nitrogen oxides (NO_x), potassium oxides, iron oxides.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Mouse - 2,970 mg/kg

Carcinogenicity

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.

Additional Information

RTECS: LJ8225000

12. Ecological information

12.1 Toxicity

Toxicity to fish

LC50 - *Poecilia reticulata* (guppy) - 2.8 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 549 mg/l - 48 h

13. Disposal considerations

13.1 Waste treatment methods

Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	-	-	-
14.6	Special precautions for user	None		
14.7	Incompatible materials	Strong acids, strong oxidizing agents, ammonia, hydrochloric acid, cyanides.		

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group
Standard 2006

Tracking Required: not required

Approved Handler Cert.: not required

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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