



Infosafe No™	1CH5C	Issue Date : May 2020	RE-ISSUED by CHEMSUPP
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Product Name : **POTASSIUM FERRICYANIDE**

Not classified as hazardous

1. Identification

GHS Product Identifier	POTASSIUM FERRICYANIDE		
Company Name	CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)		
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia		
Telephone/Fax Number	Tel: (08) 8440-2000		
Emergency phone number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)		
Recommended use of the chemical and restrictions on use	Tempering steel, etching liquid, production of pigments, electroplating, sensitive coatings on blueprint paper, fertilizer compositions and laboratory reagent.		
Other Names	<u>Name</u>	<u>Product Code</u>	

POTASSIUM FERRICYANIDE LR

PL025

POTASSIUM FERRICYANIDE AR

PA025

Potassium hexacyanoferrate (III), Red potassium prussiate,
Potassium iron (III) cyanide**Other Information**

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

GHS classification of the substance/mixture	Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004) 3rd Edition, Safe Work Australia.
Hazard Statement (s)	Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG). AUH031 Contact with acids liberates toxic gas

3. Composition/information on ingredients

Chemical Characterization	Solid				
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>	<u>Hazard Symbol</u>	<u>Risk Phrase</u>
	Potassium hexacyanoferrate (III)	13746-66-2	100 %		

4. First-aid measures

Inhalation	Remove victim to fresh air. Keep warm and at rest. Seek medical advice if effects persist.
Ingestion	Rinse mouth thoroughly with water immediately. Do not induce vomiting. Seek medical advice if effects persist.
Skin	Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention.
Eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice if effects persist.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of the patient. Consider the effects of potassium salts upon the heart.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

5. Fire-fighting measures



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Hazards from Combustion Products	May liberate toxic fumes in the fire including carbon oxides and nitrogen oxides.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media.
Specific hazards arising from the chemical	Material does not burn. Fire or heat will produce toxic fumes of cyanides. Runoff may pollute waterways.
Precautions in connection with Fire	Use suitable protective equipment for surrounding fire.

6. Accidental release measures

Personal Precautions	Avoid raising a dust cloud. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)
Clean-up Methods - Small Spillages	Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.
Clean-up Methods - Large Spillages	Collect material and place it into loosely-covered plastic containers for later disposal and wash the area with excess water.
Environmental Precautions	Prevent from entering into drains, ditches, rivers or the sea.

7. Handling and storage

Precautions for Safe Handling	Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Only use in well-ventilated areas.
Conditions for safe storage, including any incompatibilities	Store in cool place and out of direct sunlight. Keep containers closed at all times. Store away from acids. Keep container dry

8. Exposure controls/personal protection

Other Exposure Information	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m ³ . All atmospheric contamination should be kept to as low a level as is workable.
Appropriate engineering controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Recommendation: Goggles or face-shield as appropriate.
Hand Protection	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Footwear	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other



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protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	Bright red, lustrous crystals or powder.
Odour	Odourless
Solubility in Water	Very soluble >300 g/L @ 20°C
Solubility in Organic Solvents	Slightly soluble in alcohol. Soluble in acetone.
Specific Gravity	1.85 @ 25 °C
pH	6.0 - 9 (329 g/l, H ₂ O, 25 °C)
Flammability	Non combustible material.
Molecular Weight	329.25

10. Stability and reactivity

Chemical Stability	Stable under normal use conditons.
Conditions to Avoid	Avoid heating, sensitive to light and incompatibles.
Incompatible Materials	Strong acids, strong oxidising agents, ammonia, cyanides, chromium trioxide with heat, cupric nitrate, sodium nitrite plus heat, and acid fumes.
Hazardous Decomposition Products	Highly toxic fumes of cyanides when in contact with acids or heat.
Possibility of hazardous reactions	Contact with acids liberates hydrogen cyanide (HCN). May explode in the presence of ammonia and in high temperature reactions with chromium trioxide, cupric nitrate or sodium nitrite. Decomposes on strong heating to evolve highly toxic fumes, but the compound itself has low toxicity.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (mouse): 2970 mg/kg. LDL (Rat): 1600 mg/kg.
Ingestion	May cause irritation of the throat, general stomach upset, vomiting and gastrointestinal symptoms which may lead to weakness, mental confusion, hypotension, paralysis and possible circulatory disturbances, including cardiac arrhythmias, heart block and cardiac arrest. Hydrogen cyanide (high toxicity) can be liberated in the stomach as a result of contact with gastric acidity.
Inhalation	May cause respiratory tract irritation with coughing and shortness of breath.
Skin	May cause skin irritation with redness and pain.
Eye	May cause mechanical irritation with redness and pain.
Carcinogenicity	No evidence of carcinogenic properties.
Health Hazard	The following applies to cyanogen compounds/nitriles in general: Exercise utmost caution! Release of hydrocyanic acid is possible - may block cellular respiration. Cardiovascular disorders, dyspnoea, unconsciousness can occur. This substance should be handled with particular care.
Chronic Effects	Prolonged or repeated inhalation may affect blood and urinary system. Due to the effect of potassium salts upon the heart, accidental ingestion of large amounts by persons suffering from a heart condition should be considered dangerous and immediate medical assistance sought.
Mutagenicity	No evidence of mutagenic properties.

12. Ecological information

Other Precautions	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	LC50 (Onchorhynchus mykiss - Rainbow trout): 869 mg/l/96 h.
Acute Toxicity - Daphnia	EC50 (Daphnia magna): 549 mg/l/48 h.

13. Disposal considerations



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Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.
Waste Disposal	Dispose of according to relevant local, state and federal government regulations.

14. Transport information

Transport Information	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
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15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
Poisons Schedule	Not Scheduled

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', 2011. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010. Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'. Safe Work Australia, 'Hazardous Chemical Information System, 2005'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances (2011)'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995) 3rd Edition]'. Paul McCarthy Ph. (08) 8440 2000
Contact Person/Point	DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. Chem-Supply accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Empirical Formula & Structural Formula K₃Fe(CN)₆

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