

SAFETY DATA SHEET (SDS)



Potassium ferricyanide, 1M

Issue date: 16-12-2025

Section 1: Product Identifier and Chemical Identity

Product Identifier	
Product Name:	Potassium ferricyanide, 1M
Product Codes:	MC91.22, MC92.22
Other means of identification:	
Chemical formula, alternative names:	$K_3Fe(CN)_6(aq)$ Potassium hexacyanoferrate (III) Red prussiate of potash Prussian red
Recommended use of the chemical and restrictions on use	
Recommended Use:	For laboratory use only.
Suppliers name, address and phone number	
Supplier's Name:	Southern Biological
Supplier's ABN:	94 630 703 810
Supplier's Address:	168 Fulham Road Alphington Victoria 3078 Australia
Supplier's Phone No.:	1300 138 561
Emergency Phone number (BH)	1300 138 561

Section 2: Hazard Identification

Classification of the Hazardous Chemical	
Hazard Category	Serious eye irritation – category 2A Hazardous to the aquatic environment (chronic) – category 2
Label elements	
Hazard Pictograms:	  exclamation mark environment
Signal Word:	Warning
Hazard Statements:	Causes serious eye irritation Toxic to aquatic life with long-lasting effects
Precautionary Statements:	Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not ingest.
Other Hazards	
Results of PBT and vPvB assessment:	PBT: Not applicable VPvB: Not applicable

Section 3: Composition/information on ingredients

Ingredients		
Name	CAS	Proportion
Water	7732-18-5	67.1%
Potassium ferricyanide	13746-66-2	32.9%

Section 4: First Aid Measures

Necessary first aid measures	
After inhalation:	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms; call a doctor. Get medical aid if cough or other symptoms appear.
After skin contact:	Wash with water and soap and rinse thoroughly. If skin irritation occurs: Get medical advice/ attention.
After eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
After swallowing:	DO NOT INDUCE VOMITING. Wash out mouth with water. Obtain emergency medical attention. Call a POISON CENTRE (13 11 26 in Australia) or doctor/physician if you feel unwell.
Symptoms caused by exposure	
Acute:	May cause gastrointestinal or respiratory issues.
Chronic:	Ingestion of large amounts of potassium salts may have an effect upon the heart.
Medical attention and special treatment	
Indications of any immediate medical attention and special treatment needed	Ingestion of large amounts of this substance by a person with heart issues should be considered dangerous and immediate medical attention sought.

Section 5: Firefighting measures

Extinguishing media	
Suitable extinguishing equipment:	Use extinguishing measures that are appropriate to local circumstances and the surrounding fire
Specific hazards arising from the chemical:	Fire or heat may produce toxic fumes of cyanide. Runoff may pollute waterways.
Advice for firefighters	
Special protective equipment and precautions:	Do not enter the fire area without proper protective equipment including respiratory equipment.

Section 6: Accidental release measures

General Information	
Personal precautions, protective equipment and emergency procedures:	No health effects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this SDS. Prevent the spread of any spill to minimise harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum.
Environmental precautions:	Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if spill to sewers or public waters.
Methods and material for containment and cleaning up:	Collect material and place into loosely-covered containers for later disposal. Wash the area with excess water.

Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on protective equipment. See Section 13 for disposal information.
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Section 7: Handling and Storage

General Information	
Precautions for safe handling:	Ensure good ventilation/exhaustion at the workplace. Wash hands after use. Do not eat, drink or smoke when using this product. Wash contaminated clothing and protective equipment prior to entering eating area.
Information about fire – and explosion protection:	No special measures required.
Conditions for safe storage, including any incompatibilities.	
Storage:	Store in cool dry area out of direct sunlight and incompatible materials. Keep containers closed when not in use. Store in suitably labelled containers.
Requirements to be met by storerooms and receptacles:	No special requirements.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Keep container tightly sealed. Keep out of direct sunlight.

Section 8: Exposure controls/personal protection.

General information	
Additional information about design of technical facilities:	No further data: see section 7
Control parameters:	
Ingredients with limit values that require monitoring at the workplace: None	
Exposure Controls:	
General protective and hygienic measures:	Use only in systems, processes and procedures in which effective ventilation has been provided. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with eyes.
Respiratory protection:	In case of significant exposure use respiratory filter device. Not normally required.
Clothing / Foot-wear and equipment	No special requirements.
Protection of hands:	PVC or rubber gloves
Eye protection:	Tightly sealed goggles
Skin protection:	Laboratory Coat

Section 9: Physical and chemical properties

Appearance:	
Form:	Liquid
Colour:	Dark red to brown
Odour:	Odourless

Odour Threshold:	Not determined
pH value:	6.0 - 9 at 25°C
Change in Condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash point:	Not determined
Flammability (solid / gaseous)	Not determined
Ignition Temperature	
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Not determined
Explosion limits	
Lower:	Not determined
Upper:	Not determined
Vapour pressure:	Not determined
Density:	Not determined
General Info	
Relative density:	Not determined
Vapour density:	Not determined
Evaporation rate:	Not determined
Solubility in/ Miscibility with water:	Miscible
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	Not determined

Section 10: Stability and reactivity

Reactivity	
General	Stable under normal conditions of storage and handling
Chemical Stability	
Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
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.
Conditions to avoid:	Excessive heat, incompatible materials
Incompatible materials:	Water-reactive chemicals, strong acids, strong oxidising agents, ammonia, cyanides, chromium trioxide with heat, cupric nitrate, sodium nitrate plus heat, acid fumes
Hazardous decomposition products:	Highly toxic fumes of cyanides when in contact with acids or heat

Section 11: Toxicological information

Information on toxicological effects			
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.		
Skin corrosion/irritation	May cause skin irritation with redness and pain.		
Serious eye damage/irritation:	May cause mechanical irritation with redness and pain.		
Inhalation:	May cause respiratory tract irritation with coughing and shortness of breath		
Germ cell mutagenicity:	Not classified based on available information		
Carcinogenicity:	Not classified based on available information		
Reproductive toxicity:	Not classified based on available information		
Specific target organ toxicity (STOT) – single exposure:	Not classified based on available information		
Specific target organ toxicity (STOT) – repeated exposure:	Not classified based on available information		
Toxicology data for the components:			
Component	LD50 oral	LD50 dermal	LC50 inhalation
Potassium ferricyanide	2970 mg/kg (mouse)	No data	No data

Section 12. Ecological information

Ecotoxicity	
Acute toxicity – fish:	LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout): 869mg/kg/96h
Acute toxicity – daphnia:	EC50 – <i>Daphnia magna</i> : 549 mg/L/48h
Persistence and degradability:	No further relevant information available.
Behaviour in environmental systems	
Bio-accumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Additional ecological information	
Results of PBT and vPvB assessment	PBT: Not applicable vPvB: Not applicable
Other adverse effects:	No further relevant information available.

Section 13. Disposal Considerations

Waste treatment methods	
Recommendation	Prevent this material from entering waterways, drains and sewers. Comply with official regulations.
Uncleaned packaging:	
Recommendation:	Disposal must be made according to official regulations.
Recommended cleansing agents:	Water, if necessary, together with cleansing agents.

Section 14. Transport information

General	UN number: 3082 Proper shipping name or technical name: Environmentally hazardous substance, liquid, NOS Transport hazard class: 9 Packing group number: III Limited quantities: 5L
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Section 15. Regulatory Information

Safety health and environmental regulations/legislation specific for the substance or mixture	
Australian Inventory of Chemical Substances:	Substances are listed.
Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

Section 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- End of SDS -