

Safety Data Sheet POTASSIUM FERROCYANIDE Solution

SDS no. MW2TD57W • Version 1.0 • Date of issue: 2024-11-21

SECTION 1: Identification

GHS Product identifier

Product name POTASSIUM FERROCYANIDE Solution

Other means of identification

Product Product Code

POTASSIUM FERROCYANIDE 2% Solution	APFC2
POTASSIUM FERROCYANIDE 5% Solution	APFC5
POTASSIUM FERROCYANIDE 10% Solution	APFC10

Recommended use of the chemical and restrictions on use

Laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

National contact

Name	Australian Biostain Pty Ltd
Address	16 Shipwright Road 5016 Largs North SA Australia

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

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Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H319

Causes serious eye irritation

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313

If eye irritation persists: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

Mixtures

Components

Component	CAS no.	Concentration
Water/Aqua/Eau	7732-18-5	90 - <= 98 % (weight)
CLASSIFICATIONS: No data available. HAZARDS: No data available.		
Potassium ferricyanide (EC no.: 237-323-3)	13746-66-2	2 - <= 10 % (weight)
CLASSIFICATIONS: Hazardous to the aquatic environment, long-term (chronic), Cat. 2; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H319 - Causes serious eye irritation; H411 - Toxic to aquatic life with long lasting effects.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

Advice to Doctor: Consider the effects of potassium salts upon the heart.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Rinse with plenty of water. Get medical attention if irritation develops and persists.

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In case of eye contact

If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam. This material is substantially water.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in the fire including carbon oxides and nitrogen oxides.

Material does not burn. Fire or heat will produce toxic fumes of cyanides. Runoff may pollute waterways.

Special protective actions for fire-fighters

Use suitable protective equipment for surrounding fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Absorb with dry earth, sand or other non-combustible material. Use clean nonsparking tools to collect and seal in properly labelled drums for disposal in an area approved by local authority bylaws. Wash area down with excess water to remove residual material. Prevent from entering into drains, ditches, rivers or the sea.

SECTION 7: Handling and storage

Precautions for safe handling

Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Take off contaminated clothing and wash it before reuse. Wash promptly with soap and water if skin becomes contaminated.

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

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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.

Skin protection

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

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.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Light yellow liquid.
Color	No data available.
Odor	Odourless
Odor threshold	No data available.
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	No data available.
Kinematic viscosity	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	No data available.
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

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.

Conditions to avoid

Avoid heating, sensitive to light and incompatibles.

Incompatible materials

Strong acids, strong oxidising agents.

Hazardous decomposition products

Highly toxic fumes of cyanides when in contact with acids or heat.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

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 corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

Causes serious eye irritation. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Respiratory or skin sensitization

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

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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.

Aspiration hazard

Not classified based on available information.

Additional information

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.

SECTION 12: Ecological information

Toxicity

Do not allow to enter waters, waste water, or soil!

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)