

Safety Data Sheet

AQUAPAC

Water Treatment & Specialty Chemicals

Hazardous Chemical, Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: Potassium permanganate solid

Synonyms

Chameleon mineral; Condy's crystal; Permanganate Of Potash; Permanganic Acid (Hmno4), Potassium Salt;

Product Code

Recommended use: Oxidiserdisinfectantanalytical reagentair and water purification

Supplier: Aquapac Pty Ltd
ABN: 36 114 118 311
Street Address: 88 Lee Holm Road
St Marys NSW 2760
Telephone: 02 9673 1192
Facsimile: 02 9673 1193

Emergency Telephone number: 1800 HELP

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



Signal Word

Danger

Hazard Classifications

Oxidising Solids - Category 2
Acute Toxicity - Oral - Category 4
Acute Hazard to the Aquatic Environment - Category 1
Chronic Hazard to the Aquatic Environment - Category 1

Hazard Statements

H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Prevention Precautionary Statements

P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials/(insert appropriate material).
P221 Take any precaution to avoid mixing with combustibles/(insert incompatible materials).
P264 Wash hands, face and all exposed skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements

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P101 If medical advice is needed, have product container or label at hand.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P370+P378 In case of fire: Use (insert appropriate media) for extinction.
P391 Collect spillage.

Storage Precautionary Statement

Not allocated

Disposal Precautionary Statement

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule:

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 5.1

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Permanganic acid (HMnO ₄), potassium salt Ingredients determined to be Non-Hazardous	7722-64-7	>99 % (w/w) Balance

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Get medical aid immediately. Remove victim from exposure - avoid becoming a casualty. Seek medical attention if any symptoms persist. If breathing difficult, provide oxygen. Do NOT use mouth to mouth respiration.

Skin Contact: Get medical aid immediately. Flush contaminated skin with plenty of water for at least 15 minutes and then wash with soap and water. Remove contaminated clothing and wash before re-use. Destroy contaminated shoes.

Eye contact: Immediately irrigate with copious quantities of water for at least 30 minutes. Eyelids to be held open. Seek immediate medical attention immediately. Do NOT allow victim to rub or keep eyes closed.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2 – 4 cupfuls of milk or water. Seek medical attention immediately.

Notes to physician: Treat symptomatically. Absorption of this product into the body may cause cyanosis. Moderate degrees of cyanosis need to be treated only by supportive measures; bed rest and oxygen inhalation. If cyanosis is severe, intravenous injection of methylene blue, 1 mg/Kg body weight may be of value.

5. FIRE FIGHTING MEASURES

Hazchem Code: 1Y

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray),

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alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: May intensify fire; oxidiser.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS

If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 31

7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of dust.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for spills.

This material is classified as a Division 5.1 Oxidising Substance as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by Safe Work Australia.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

National occupational exposure limits: Natural ventilation should be adequate under normal use conditions..

Personal Protection Equipment: SAFETY SHOES, GLOVES, APRON, SAFETY GLASSES.

Wear safety shoes, gloves, apron, safety glasses. Available information suggests that gloves made from polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of dust. Ensure that eyewash stations and safety showers are close to the workstation location.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Crystalline Solid
Colour:	Purple with metallic sheen
Solubility:	Soluble in water, acetone, and methanol
Specific Gravity (20 °C):	2.703
Melting Point/Range (°C):	240

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal ambient conditions, transport, storage, handling, and usage.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: AVOID reducing agents, concentrated hydrochloric acid, concentrated sulfuric acid, formaldehyde, ammonium nitrate, dimethyl-formamide. Forms SENSITIVE EXPLOSIVE mixtures with ammonium perchlorate, titanium, arsenic, phosphorous, slag wool, and sulfur. AVOID simple alcohols, such as methanol and glycerol, as it produces a violent combustion reaction.

Hazardous decomposition products: Decomposes to form hazardous fumes and gases; oxygen gas, and potassium oxide.

Hazardous reactions: No polymerisation reactions known.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Aspiration may lead to pulmonary oedema. Causes respiratory tract irritation with possible burns.

Skin contact: Causes skin irritation and possible burns. May cause skin rash (in milder cases) and cold clammy skin with cyanosis or pale colour. Skin contact can cause brown stains in the area, and possible hardening of the outer skin layer.

Ingestion: Harmful if swallowed. May cause severe and permanent damage to the digestive tract. May cause severe gastro intestinal tract irritation with nausea, vomiting and possible burns.. May cause perforation of the digestive tract. May be harmful if swallowed. May form methemoglobin which in sufficient concentration causes cyanosis. In high doses manganese may increase anemia by interfering with iron absorption.

Eye contact: Causes severe eye irritation and possible burns. May cause chemical conjunctivitis and corneal damage. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >5 mg/L

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on

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ingredients): >2,000 mg/Kg

Ingestion: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 300 - 2,000 mg/Kg

LD50 (Rat): 1090 mg/kg

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: Do NOT allow product to enter waterways, drains, or sewers.

Long-term aquatic hazard: This material has been classified as a Category Chronic 1 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): <1 mg/L, where the substance is not rapidly degradable and/or BCF \geq 500 and/or log $K_{ow} \geq$ 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

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UN No: 1490
Dangerous Goods Class: 5.1
Packing Group: II
Hazchem Code: 1Y
Emergency Response Guide No: 31

Proper Shipping Name: POTASSIUM PERMANGANATE

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), toxic gases (Class 2.3), flammable liquids (Class 3), flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), organic peroxides (Class 5.2), radioactive substances (Class 7), corrosive substances (Class 8), fire risk substances or combustible liquids. Also note that fire risk substances including dangerous goods of Class 6 or Class 9 which are fire risk substances are incompatible with dangerous goods of Class 1, Class 5.1 and Class 5.2. Exemptions may apply.

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No: 1490
Dangerous Goods Class: 5.1
Packing Group: II

Proper Shipping Name: POTASSIUM PERMANGANATE

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No: 1490
Dangerous Goods Class: 5.1
Packing Group: II

Proper Shipping Name: POTASSIUM PERMANGANATE

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:
Montreal Protocol (Ozone depleting substances)

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The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)
International Convention for the Prevention of Pollution from Ships (MARPOL)

16. OTHER INFORMATION

Reason for issue: Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.