



Infosafe No™	1CH57	Issue Date : November 2015	RE-ISSUED by CHEMSUPP
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Product Name : **POTASSIUM CHLORATE**

Classified as hazardous

1. Identification

GHS Product Identifier	POTASSIUM CHLORATE	
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 Fax: (08) 8440-2001	
Recommended use of the chemical and restrictions on use	Oxidising agent, explosives, matches, source of oxygen, textile printing, pyrotechnics, percussion caps, disinfectant, bleaching, analytical chemistry and laboratory reagent.	
Other Names	Name	Product Code
	POTASSIUM CHLORATE LR	PL055
	POTASSIUM CHLORATE AR	PA055
Other Information	EMERGENCY CONTACT NUMBER: +61 08 8440 2000 Business hours: 8:30am to 5:00pm, Monday to Friday.	

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	Hazardous to the Aquatic Environment - Long-Term Hazard: Category 2 Acute Toxicity - Inhalation: Category 4 Oxidizing Solids: Category 1 Acute Toxicity - Oral: Category 4
Signal Word (s)	DANGER
Hazard Statement (s)	H271 May cause fire or explosion; strong oxidiser. H302 Harmful if swallowed. H332 Harmful if inhaled. H411 Toxic to aquatic life with long lasting effects.
Pictogram (s)	Flame over circle, Exclamation mark, Environment



Precautionary statement – Prevention	P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P220 Keep/Store away from clothing/.../combustible materials. P221 Take any precaution to avoid mixing with combustibles ... P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P283 Wear fire/flame resistant/retardant clothing. P273 Avoid release to the environment.
Precautionary statement – Response	Swallowed P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth. Eyes P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for



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breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
Fire
P306+P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P370+P378 In case of fire: Use flooding quantities of water for extinction.
P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P501 Dispose of contents/container to approved waste disposal plant.

Precautionary statement – Disposal

3. Composition/information on ingredients

Chemical	Solid				
Characterization					
Ingredients	Name	CAS	Proportion	Hazard Symbol	Risk Phrase
	Potassium chlorate	3811-04-9	100 %		

4. First-aid measures

Inhalation If inhaled, remove from contaminated area to fresh air immediately. If breathing is difficult, give oxygen. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.

Ingestion Rinse mouth thoroughly with water immediately. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Skin Wash affected areas with copious quantities of water. Remove contaminated clothing and wash before re-use. Seek medical advice if effects persist.

Eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.

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.

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

Unsuitable Extinguishing Media Do not use dry chemicals, CO2 or foam.

Hazards from Combustion Products Oxygen is released at >400 °C., Chlorine.

Specific Methods
Small fire:
USE FLOODING QUANTITIES OF WATER. Do not use dry chemicals, CO2 or foam. If safe to do so, move undamaged containers from fire area. Do not move cargo if cargo has been exposed to heat.
Large fire:
Flood fire area with water from a protected position. Cool containers with flooding quantities of water until well after fire is out – If impossible, withdraw from area and let fire burn. Avoid getting water inside containers: a violent reaction may occur. Dam fire control water for later disposal.

Specific hazards arising from the chemical Will accelerate burning when involved in a fire. May explode from heating, shock, friction or contamination. Chlorate salts may react dangerously with hydrocarbons (fuels), organic matter, other contaminants or when hot, molten and confined; to form a mass explosive of Division 1.1. In this condition it should be treated as an explosive and the explosive public safety evacuation distances apply. May ignite combustibles (wood, paper, clothing, and so on). Fire may produce irritating, toxic, and/or corrosive gases. Containers may explode when heated. Runoff may create fire or explosion hazard. May decompose explosively when heated or involved in a fire.
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.

Hazchem Code 1Y

Decomposition Temp. 400 °C - giving off oxygen gas

Precautions in connection with Fire Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.



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6. Accidental release measures

Emergency Procedures	Spill or leak area should be isolated immediately for at least 25 m in all directions. Keep unauthorized personnel away. Keep upwind and to higher ground.
Spills & Disposal	Do not contaminate. Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled materials. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use water spray to knock down vapours or divert vapour clouds. Prevent entry into waterways, drains or confined areas. Prevent exposure to heat. DRY SPILL Use clean non-sparking tools to transfer material to clean, dry plastic container and cover loosely. Move container from spill area. SMALL LIQUID SPILL Use a non-combustible material like vermiculite, sand, or earth to soak up the product and place in a loosely covered container for later disposal. LARGE LIQUID SPILL SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.
Personal Protection	Wear protective clothing specified for normal operations (see Section 8)

7. Handling and storage

Precautions for Safe Handling	Avoid substance contact and generation and inhalation of dust. Wash hands and face thoroughly after working with material.
Conditions for safe storage, including any incompatibilities	Store away from combustible materials. Store away from acids. Keep containers securely sealed and protected against physical damage. Keep container tightly closed in a dry, well-ventilated place away from direct sunlight and other sources of heat or ignition. Store at room temperature (15 - 25 °C).
Storage Regulations	Refer Australian Standard AS 4326 - 1995 'The storage and handling of oxidizing agents'.

8. Exposure controls/personal protection

Other Exposure Information	A time weighted average (TWA) concentration for an 8 hour day, and 5 day week has not been established by Safe Work Australia for this product. There is a blanket limit of 10 mg/m ³ for dusts when limits have not otherwise been established.
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.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Personal Protective Equipment	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.
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	Flame retardant protective clothing. 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 protective equipment before storing or re-using.

9. Physical and chemical properties

Form	Solid
Appearance	Transparent, colourless crystals or white powder.
Odour	Odourless.



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Decomposition Temperature	400 °C - giving off oxygen gas
Melting Point	356 °C
Solubility in Water	Soluble (73 g/L @ 20 °C)
Solubility in Organic Solvents	Almost insoluble in ethanol.
Specific Gravity	2.337
pH	5.0 - 6.5 (73 g/l, H ₂ O, 20 °C)
Flammability	Not combustible but assists combustion of other substances.
Molecular Weight	122.55
Other Information	Cooling, saline taste.

10. Stability and reactivity

Chemical Stability	Stable under normal use conditons.
Conditions to Avoid	Sensitive to sock and friction.
Incompatible Materials	Reducing agents, acids, ammonium compounds, sulfides, hydrocarbons, phosphorus, hydrides, fluorine, organic combustible substances, alkali metals, cyanides, alkali amides, sulfur, alcohols and metals in powder form.
Hazardous Decomposition Products	Hydrogen chloride gas, chlorine, chlorine oxides, oxygen.
Possibility of hazardous reactions	May form explosive mixtures with ammonium compounds, combustible material (e.g. sulfur, sugar) or finely powdered metals. Mixtures with combustible material are sensitive to friction and are liable to ignite or explode on contact with sulfuric acid or in a fire.
Hazardous Polymerization	Will not occur.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat): 1870 mg/kg.
Ingestion	Harmful if swallowed. Absorption of this product into the body leads to the formation of methaemoglobin which, in sufficient concentration, causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Symptoms of overexposure to potassium chlorate include nausea, vomiting, abdominal pain, diarrhea, anaemia (hemolytic), hemorrhage, collapse, spasms, respiratory arrest and death. Anuria, damage to the liver, convulsions due to central nervous system effects and coma may also occur.
Inhalation	Harmful by inhalation. Causes irritation. Absorption of this product into the body leads to the formation of methemoglobin which, in sufficient concentration, causes cyanosis.
Skin	Contact with skin may result in irritation. May be absorbed via mucous membranes resulting in methaemoglobinaemia.
Eye	May be an eye irritant.
Carcinogenicity	No evidence of carcinogenic properties.
Chronic Effects	Overexposure may cause kidney injury.
Mutagenicity	No evidence of mutagenic properties.

12. Ecological information

Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	Leuciscus idus LC50: 3500 mg/l; Onchorhynchus mykiss (Rainbow trout) LC50: 1.750 mg/l/96 h; Daphnia magna EC50: 1093 mg/l/24 h.
Acute Toxicity - Daphnia	
Acute Toxicity - Algae	Maximum permissible toxic concentration: Scenedesmus quadricauda IC5: 0.24 mg/l.



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Acute Toxicity - Bacteria	Maximum permissible toxic concentration: Microcystis aeruginosa EC5: 12 mg/l.
Acute Toxicity - Other Organisms	Maximum permissible toxic concentration: Protozoa: Entosiphon sulcatum EC5: 817 mg/l.

13. Disposal considerations

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

Transport Information	Dangerous goods of Class 5.1 (Oxidizing Agent) are incompatible in a placard load with any of the following: Class 1, Class 2.1, Class 2.3, Class 3, Class 4, Class 5.2, Class 7, Class 8, Fire risk substances and Combustible liquids.
U.N. Number	1485
UN proper shipping name	POTASSIUM CHLORATE
Transport hazard class(es)	5.1
Hazchem Code	1Y
Packaging Method	3.8.5.1
Packing Group	II
EPG Number	5A1
IERG Number	31

15. Regulatory information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	S5

16. Other Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons No. 6', Commonwealth of Australia, February 2015. 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 Substances 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)]'. Paul McCarthy Ph. (08) 8440 2000 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.
Contact Person/Point	
Empirical Formula & Structural Formula	KClO ₃ ...End Of MSDS...



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Safety Data Sheet

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