



SAFETY DATA SHEET PEKACID REVISION 4, DATE 09 OCT 19

1. IDENTIFICATION

Product Name	Pekacid
Other Names	PeKacid 0-26-16; PeKacid 0-60-20; Potassium pentahydrogen bis(phosphate)
Uses	Water soluble fertiliser; Fertigation; Restricted to professional users.
Chemical Family	No Data Available
Chemical Formula	H5K08P2
Chemical Name	Phosphoric acid, potassium salt (2:1)
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887


2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

Hazard Classification		Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	
Hazard Categories		Serious Eye Damage/Irritation - Category 2A	
Pictograms			
Signal Word		Warning	
Hazard Statements		H319	Causes serious eye irritation.
Precautionary Statements	Prevention	P264	Wash face, hands and any exposed skin thoroughly after handling.
		P280	Wear protective gloves/eye protection/face protection.
	Response	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.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Potassium pentahydrogen bis(phosphate)	H5KO8P2	14887-42-4	80 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult.
Advice to Doctor	First aid measures should be executed by trained personnel only. Do not leave affected persons unattended. No information available.

Medical Conditions Aggravated by Exposure

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Not flammable.
Extinguishing Media	If material is involved in a fire, use extinguishing agent suitable for type of surrounding fire. Use dry chemical, Carbon dioxide (CO ₂), alcohol-resistant foam or water spray for extinction - Do not use high volume water jet.
Fire and Explosion Hazard	Doesn't present explosion hazard. Thermal decomposition can lead to release of irritating and toxic gases and vapours.
Hazardous Products of Combustion	Fire or heat may produce irritating, toxic and/or corrosive fumes, including Phosphorus oxides (e.g. P ₂ O ₅).
Special Fire Fighting Instructions	Collect contaminated fire fighting water separately; It must not enter the sewage system.
Personal Protective Equipment	Firefighters should wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Take up mechanically. If uncontaminated, sweep up or collect, and reuse as product. If contaminated with other materials, collect in suitable containers for disposal (see SECTION 13).
Containment	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
Decontamination	No information available.
Environmental Precautionary Measures	This product is used as fertiliser; However, large spills can kill vegetation. Prevent entry into drains and waterways. Do not allow material to contaminate ground water system.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dusts or mists and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8).
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed; partly used packaging should be closed well. Protect from humidity and water (hygroscopic). Keep away from heat and sources of ignition - No smoking. Keep away from flammables and incompatible materials (see SECTION 10).
Container	Keep in the original (closed) container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable dust).
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	- Respiratory protection: Not required; except in case of spray mist/aerosol formation. Recommended: Particulate filter (P2) respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Tightly sealed goggles. - Hand protection: Handle with gloves. Recommended: Protective gloves, e.g. Nitrile rubber (0.26 mm). - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Lightweight protective clothing.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Keep away from food, drink and animal feeding stuffs.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystals, powder
Odour	None
Colour	White
pH	2.2 (10 g/l)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	127 - 135 °C
Freezing Point	No Data Available
Solubility	Soluble in water (670 g/L) 20°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	1.4 - 2.0 g/cm ³
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available

Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Doesn't present explosion hazard.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Not flammable.
Reactions That Release Gases or Vapours	Thermal decomposition can lead to release of irritating and toxic gases and vapours, including Phosphorus oxides (e.g. P2O5).
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Reacts with alkali (lyes). Water solutions of this product may be corrosive to metals.
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid generating dust. Avoid direct sunlight and moisture. To avoid thermal decomposition do not overheat.
Materials to Avoid	Incompatible/reactive with water, metals, alkalis and catalysts, like derivatives of hexavalent chromium and metal halides.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating and toxic gases and vapours, including Phosphorus oxides (e.g. P2O5). Reacts with metals in the presence of moisture to form hydrogen.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: No classification is necessary. May cause gastrointestinal discomfort if consumed in large amounts. - Skin corrosion/irritation: Based on available data, the classification criteria are not met. May cause skin irritation. Not irritating (Rabbit) [OECD 404]. - Eye damage/irritation: Causes serious eye irritation. Irritating (Rabbit) [OECD 405]. - Respiratory/skin sensitisation: Based on available data, the classification criteria are not met. - Germ cell mutagenicity: No inherent risk of genotoxicity. - Carcinogenicity: No information available (no carcinogenicity study needs to be performed as this substance is not genotoxic). - Reproductive toxicity: No classification is necessary. - STOT (single exposure): Based on available data, the classification criteria are not met. Inhalation of dust in high concentration may cause irritation of respiratory system. - STOT (repeated exposure): Based on available data, the classification criteria are not met. - Aspiration toxicity: Based on available data, the classification criteria are not met.
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat: >2,000 mg/kg [OECD 425].

Other	Acute toxicity (Dermal): - LD50, Rat: >2,000 mg/kg [OECD 402].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Inorganic phosphates are not considered to be toxic to aquatic species or to sewage treatment plant microorganisms.
Persistence/Degradability	The substance is inorganic; therefore no biodegradation tests are applicable. This product dissociates into potassium and phosphate ions, which cannot be further degraded.
Mobility	This substance is highly water soluble and dissociating. Low potential for adsorption (based on substance properties).
Environmental Fate	The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Phosphates should be removed from industrial wastewater before it is released to the environment.
Bioaccumulation Potential	Does not accumulate in organisms.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Disposal of wastes should be in accordance with applicable regional, national and local laws and regulations.
Special Precautions for Land Fill	Contaminated packaging: Use up product completely. Do not reuse container.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available

Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	PeKacid
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available

Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	Not Assessed
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National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Listed
China (IECSC)	Not Determined
Europe (EINECS)	238-961-5
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes	HEPOPH1000, HEPOPH1001, HEPOPH1002, HEPOPH1003, HEPOPH1004
Revision	4
Revision Date	09 Oct 2019
Key/Legend	<p>< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre lb Pound LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath and Safety Commission OECD Organisation for Economic Co-operation and Development Oz Ounce PEL Permissible Exposure Limit Pa Pascal ppb Parts per Billion ppm Parts per Million ppm/2h Parts per Million per 2 Hours ppm/6h Parts per Million per 6 Hours psi Pounds per Square Inch R Rankine RCP Reciprocal Calculation Procedure STEL Short Term Exposure Limit TLV Threshold Limit Value tne Tonne</p>

TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight