

1. IDENTIFICATION

Product Name	Potassium Sulphate
Other Names	Dipotassium sulfate; Dipotassium sulphate; Potassium sulfate; SOP
Uses	Fertilisers; Pharmaceuticals.
Chemical Family	No Data Available
Chemical Formula	K ₂ SO ₄
Chemical Name	Sulfuric acid, dipotassium salt
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	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Signal Word	None

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 sulphate	K ₂ SO ₄	7778-80-5	<=100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink a glass of water. Do not induce vomiting. 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 water. Take off contaminated clothing and wash it 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.
Advice to Doctor	Treat symptomatically. *Most important symptoms and effects, both acute and delayed: May be an eye irritant.
Medical Conditions Aggravated by Exposure	No information available.

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. Dike fire-control water for later disposal.
Flammability Conditions	Non-combustible material.
Extinguishing Media	If material is involved in a fire, use extinguishing media appropriate to surrounding fire conditions.
Fire and Explosion Hazard	Decomposes on heating, emitting toxic fumes.
Hazardous Products of Combustion	Fire or heat may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur, oxides of Potassium.

Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only 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 - Slippery when spilt. Avoid accidents, clean up immediately! Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Take up dry. Collect and seal in properly labelled containers for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	No information available.
Environmental Precautionary Measures	Prevent entry into drains and waterways. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate the danger area! 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. Avoid generating dust. Avoid breathing dust 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 when not in use - check regularly for spills. Keep away from heat and sources of ignition - No smoking. Keep away from foodstuffs and incompatible materials (see SECTION 10).
Container	Keep in the original 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: In case of inadequate ventilation, wear respiratory protection. Recommended: Dust mask/particulate respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses. - Hand protection: Handle with gloves. Recommended: Impervious gloves, e.g. Nitrile rubber.

- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash hands after working with substance and before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline powder, granules, pearls
Odour	Odourless
Colour	White or off-white
pH	~7 (aqueous soln.)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	1,689 °C
Melting Point	1,067 °C
Freezing Point	No Data Available
Solubility	120 g/L in water 25°C
Specific Gravity	2.66
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	174.26
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	No information available.
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	Non-combustible material.
Reactions That Release Gases or Vapours	Fire or heat may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur, oxides of Potassium.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	No information available.
Chemical Stability	The product is chemically stable under standard ambient conditions.
Conditions to Avoid	Avoid generating dust.
Materials to Avoid	Incompatible/reactive with strong oxidising agents, aluminium, calcium, magnesium, sodium.
Hazardous Decomposition Products	Fire or heat may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur, oxides of Potassium.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on toxicological effects:</p> <ul style="list-style-type: none">- Acute toxicity: Not classified.- Skin corrosion/irritation: Not classified.- Serious eye damage/irritation: Not classified.- Respiratory/skin sensitisation: Not classified.- Germ cell mutagenicity: Not classified.- Carcinogenicity: Not classified.- Reproductive toxicity: Not classified.- STOT (single exposure): Not classified.- STOT (repeated exposure): Not classified.- Aspiration toxicity: Not classified. <p>Information on possible routes of exposure:</p> <ul style="list-style-type: none">- Ingestion: No adverse effects expected; however, large amounts may cause gastrointestinal discomfort, nausea and vomiting.- Eye contact: May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.- Skin contact: Contact with skin will result in mild irritation.- Inhalation: Material may be irritant to the mucous membranes of the respiratory tract (airways). <p>Chronic effects: No information available.</p>
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat (male & female): >2,000 mg/kg [analogy; OECD Test Guideline 425].
Other	Acute toxicity (Dermal): - LD50, Rat (male & female): >2,000 mg/kg [OECD Test Guideline 402].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity:
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- LC50, Fish (Fathead minnow): 680 mg/L (96 h) [US-EPA; ECHA].
- EC50, Crustacea (Daphnia magna): 720 mg/L (48 h) [US-EPA; ECHA].

Persistence/Degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Mobility	No information available.
Environmental Fate	Prevent entry into drains and waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	No information available.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Potassium Sulphate
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 (Malaysia)

ADR Code

Proper Shipping Name	Potassium sulphate
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 (New Zealand)

NZS5433

Proper Shipping Name	Potassium Sulphate
Class	No Data Available

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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	Potassium Sulphate
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	Potassium Sulphate
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	Potassium Sulphate
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)

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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)

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 Hazardous

National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	231-915-5
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes POSULA1000, POSULA1001, POSULA1002, POSULA1003, POSULA1004, POSULA1005, POSULA1006, POSULA1100, POSULA1200, POSULA1400, POSULA1500, POSULA1600, POSULA2000, POSULA2001, POSULA2002, POSULA2100, POSULA2101, POSULA2500, POSULA2501, POSULA2900, POSULA3000, POSULA3001, POSULA3100, POSULA3200, POSULA3300, POSULA3400, POSULA3500, POSULA3900, POSULA3901, POSULA4000, POSULA4001, POSULA4100, POSULA4101, POSULA4200, POSULA4201, POSULA4500, POSULA4501, POSULA4700, POSULA4701, POSULA5000,

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POSULA5001, POSULA5100, POSULA5500, POSULA5700, POSULB1000, POSULB1500, POSULP0500, POSULP0501, POSULP0505, POSULP0600, POSULP0601, POSULP0603, POSULP0605, POSULP0606, POSULP0607, POSULP0700, POSULP0701, POSULP0702, POSULP0703, POSULP0704, POSULP0900, POSULP1000, POSULP1001, POSULP1002, POSULP1003, POSULP1004, POSULP1005, POSULP1006, POSULP1007, POSULP1008, POSULP1009, POSULP1010, POSULP1011, POSULP1012, POSULP1013, POSULP1014, POSULP1015, POSULP1016, POSULP1017, POSULP1018, POSULP1019, POSULP1020, POSULP1021, POSULP1022, POSULP1025, POSULP1030, POSULP1038, POSULP1039, POSULP1050, POSULP1055, POSULP1056, POSULP1062, POSULP1063, POSULP1064, POSULP1065, POSULP1066, POSULP1100, POSULP1200, POSULP1300, POSULP1301, POSULP1401, POSULP1402, POSULP1500, POSULP1501, POSULP1502, POSULP1504, POSULP1507, POSULP1510, POSULP1600, POSULP1700, POSULP1800, POSULP1801, POSULP1802, POSULP1803, POSULP1804, POSULP1805, POSULP1806, POSULP1807, POSULP1808, POSULP1809, POSULP1810, POSULP1811, POSULP1812, POSULP1813, POSULP1814, POSULP1815, POSULP1816, POSULP1817, POSULP1818, POSULP1819, POSULP1820, POSULP1821, POSULP1822, POSULP1823, POSULP1824, POSULP1825, POSULP1826, POSULP1827, POSULP1828, POSULP1829, POSULP1830, POSULP1831, POSULP1832, POSULP1900, POSULP2000, POSULP2001, POSULP2002, POSULP2020, POSULP2021, POSULP2022, POSULP2023, POSULP2024, POSULP2025, POSULP2026, POSULP2027, POSULP2200, POSULP2500, POSULP2501, POSULP2502, POSULP2600, POSULP2700, POSULP2800, POSULP2802, POSULP2900, POSULP3000, POSULP3010, POSULP3100, POSULP3200, POSULP3300, POSULP3400, POSULP3401, POSULP3500, POSULP3600, POSULP3700, POSULP3800, POSULP3900, POSULP4000, POSULP4001, POSULP4002, POSULP4100, POSULP4200, POSULP4201, POSULP4202, POSULP4203, POSULP4204, POSULP4300, POSULP4400, POSULP4401, POSULP4402, POSULP4404, POSULP4500, POSULP4600, POSULP4700, POSULP4701, POSULP4800, POSULP4801, POSULP4803, POSULP4900, POSULP5000, POSULP5001, POSULP5100, POSULP5102, POSULP5103, POSULP5104, POSULP5500, POSULP6200, POSULP6201, POSULP6202, POSULP6203, POSULP6204, POSULP6205, POSULP6206, POSULP6207, POSULP6300, POSULP6301, POSULP6302, POSULP6500, POSULP7000, POSULP7001, POSULP7500, POSULP7501, POSULP7502, POSULP7503, POSULP7510, POSULP8000, POSULP8800, POSULP9000, POSULP9500, POSULP9600, POSULP9601, POSULP9800, POSULP9801, POSULP9802, POSULP9803, POSUPH1000, POSUPH9000

Revision

5

Revision Date

05 Apr 2022

Key/Legend

< 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

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mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health 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

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight