

1. IDENTIFICATION

Product Name	Potassium Metabisulphite
Other Names	Potassium pyrosulfite
Uses	Food additive; for professional use.
Chemical Family	No Data Available
Chemical Formula	H2O5S2.2K
Chemical Name	Disulfurous 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	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)		
Hazard Categories	Serious Eye Damage/Irritation - Category 1		
Pictograms			
Signal Word	Danger		
Hazard Statements	AUH031	Contact with acids liberates toxic gas	
	H318	Causes serious eye damage.	
Precautionary Statements	Prevention	P280	Wear eye protection/face protection.
	Response	P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.

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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Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification	Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Potassium metabisulphite	H2O5S2.2K	16731-55-8	>=90 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then drink plenty of water. Get immediate medical advice/attention. Do not induce vomiting unless directed to do so by medical personnel. *Risk of Sulfur dioxide formation by reaction with gastric acid after swallowing.
Eye	IF IN EYES: Protect uninjured eye. 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. Immediately call a Poison Centre or doctor/physician for advice/Consult an ophthalmologist/eye

specialist. Can cause corneal burns!

Skin	IF ON SKIN: Areas of the body that have (or are only even suspected of having) come into contact with the product must be washed immediately with plenty of soap and running 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 warm and at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. *After inhalation of decomposition products: Immediately administer a corticosteroid from a controlled/metered dose inhaler.
Advice to Doctor	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet, if possible). Treat according to symptoms (decontamination, vital functions), no known specific antidote. *Most important symptoms and effects, both acute and delayed: Causes serious eye damage.
Medical Conditions Aggravated by Exposure	Allergic symptoms. A sensitizing effect on particularly sensitive individuals cannot be excluded. This sensitivity can cause a wide range of reactions ranging from mild to severe dermatological, pulmonary, gastrointestinal, or cardiovascular symptoms.

5. FIRE FIGHTING MEASURES

General Measures	Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal.
Flammability Conditions	The substance/product is non-combustible.
Extinguishing Media	If material is involved in a fire, use Carbon dioxide (CO ₂), foam or water spray for extinction.
Fire and Explosion Hazard	Toxic gases may be liberated.
Hazardous Products of Combustion	Sulphur dioxide can be released if the product is involved in a fire.
Special Fire Fighting Instructions	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Contaminated extinguishing water must be disposed of in accordance with official regulations.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will provide only 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 dust formation. Avoid breathing dusts or mists and contact with eyes, skin and clothing.
Clean Up Procedures	Sweep/shovel up spilled material and place in suitable container. Correctly dispose of recovered product immediately (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Wash with plenty of water. Retain contaminated washing water and dispose it.
Environmental Precautionary Measures	Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Wear personal protection equipment (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 the formation and deposition of dust. Avoid breathing dusts or mists and contact with eyes, skin and clothing. Do not ingest. Use personal protection equipment as required (see SECTION 8). To avoid thermal decomposition, do not overheat. *Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Storage	Store in cool, dry and adequately ventilated premises, out of direct sunlight. Keep container tightly closed. Avoid humidity. Keep away from food/feedstuffs and incompatible materials (see SECTION 10).
Container	Keep in the original container. *Don't re-use empty container before they have been cleaned.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. HAZARDOUS DECOMPOSITION PRODUCT: Sulfur dioxide (CAS No. 7446-09-5): - Safe Work Australia Exposure Standard: TWA = 2 ppm (5.2 mg/m ³); STEL = 5 ppm (13 mg/m ³). - New Zealand Workplace Exposure Standard [Adopted 2019]: STEL = 0.25 ppm (0.66 mg/m ³); Respiratory sensitiser (rsen).
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: Wear a NIOSH-certified (or equivalent) particulate respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles (chemical goggles). - Hand protection: Handle with gloves. Recommended: Chemical resistant protective gloves. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Hands and/or face should be washed before breaks and at the end of the shift. Contaminated clothing should be changed before entering eating areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline powder
Odour	Pungent, Sulphur dioxide
Colour	White or slightly yellowish
pH	3.5 - 4.5 (5%)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	>150 °C
Freezing Point	No Data Available
Solubility	450 g/L H ₂ O 20°C

Specific Gravity	1.20 kg/dm ³
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	>150 °C
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	-4.0
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	The substance/product is non-combustible.
Reactions That Release Gases or Vapours	May decompose upon heating to produce corrosive and/or toxic gases, including Sulfur dioxide.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Contact with acids liberates toxic gas.
Chemical Stability	The product is stable if stored and handled as prescribed/indicated.
Conditions to Avoid	Avoid the formation and deposition of dust. Avoid humidity. To avoid thermal decomposition, do not overheat.
Materials to Avoid	Incompatible/reactive with acids, oxidising agents, nitrites and nitrates, sulfides.
Hazardous Decomposition Products	May decompose upon heating to produce corrosive and/or toxic gases, including Sulfur dioxide.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information

Information on toxicological effects:

- Acute toxicity: May be harmful if swallowed. Ingesting sulfites may cause irritation of the human stomach, due to liberation of SO₂, producing sulfurous acid [NICNAS].
- Skin corrosion/irritation: Based on the data available, not considered to be a skin irritant.
- Eye damage/irritation: Causes serious eye damage.
- Respiratory/skin sensitisation: Based on the available data, not likely to be a skin or respiratory sensitiser in humans generally, except in some sensitive individuals. Ingestion of sulfites is reported to cause rapid acute allergic reactions such as anaphylactic responses, especially to asthmatic people who have a deficiency of sulfite oxidase enzyme.
- Germ cell mutagenicity: Based on the data available, not considered to be genotoxic.
- Carcinogenicity: Based on the data available, not considered to be carcinogenic. Metabisulfites are classified by the IARC Monographs as "Not classifiable as to its carcinogenicity to humans" (Group 3).
- Reproductive toxicity: Based on the data available, not considered to cause reproductive or developmental toxicity.
- STOT (single exposure): Based on the available information there is no specific target organ toxicity to be expected after a single exposure.
- STOT (repeated exposure): Based on the data available, not considered to cause serious damage to health by repeated exposure.
- Aspiration toxicity: No information available.

Information on likely routes of exposure:

- Ingestion: Risk of Sulfur dioxide formation by reaction with gastric acid after swallowing.
- Eye contact: Causes serious eye damage. May cause redness and tearing of the eyes.
- Skin contact: May cause skin irritation.
- Inhalation: Inhalation of dust in high concentration may cause irritation of respiratory system.

Chronic effects: No information available.

Acute**Ingestion**

Acute toxicity (Oral):

- LD50, Rat: 2,300 mg/kg [Supplier's SDS].

Carcinogen Category

None

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Aquatic Toxicity:

- LC50, Fish: 460 - 1,000 mg/l (96 h).
- EC50, Bacteria: 65 mg/l (17 h).

Persistence/Degradability

No information available.

Mobility

No information available.

Environmental Fate

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

*Higher concentrations of the substance may cause a strong chemical oxygen consumption in biological sewage-treatment plants and/or waterways. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Bioaccumulation Potential

No information available.

Environmental Impact

No Data Available

13. DISPOSAL CONSIDERATIONS**General Information**

Must be disposed of or incinerated in accordance with local/regional/national regulations.

Special Precautions for Land Fill

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Potassium Metabisulphite
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 Metabisulphite
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 Metabisulphite
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	Potassium Metabisulphite
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

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

Sea Transport

IMDG Code

Proper Shipping Name Potassium Metabisulphite
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 Metabisulphite
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)

15. REGULATORY INFORMATION

General Information POTASSIUM METABISULPHITE is listed in Schedule 5 of the SUSMP, when packed for domestic use, except in preparations containing 10 % or less of potassium metabisulphite.

Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR002503 - Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020

National/Regional Inventories

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Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed
China (IECSC)	Listed
Europe (EINECS)	240-795-3
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Listed
Korea (KECI)	KE-12700
Malaysia (EHS Register)	Not Listed
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	POMETA0100, POMETA0900, POMETA1000, POMETA1001, POMETA1002, POMETA1003, POMETA1004, POMETA1005, POMETA1006, POMETA1007, POMETA1008, POMETA1009, POMETA1010, POMETA1015, POMETA1050, POMETA1100, POMETA1101, POMETA1200, POMETA1201, POMETA1300, POMETA1500, POMETA1501, POMETA1502, POMETA1503, POMETA1504, POMETA1600, POMETA1900, POMETA2000, POMETA2001, POMETA2002, POMETA2003, POMETA2004, POMETA2100, POMETA2200, POMETA2201, POMETA2300, POMETA2301, POMETA2302, POMETA2400, POMETA2500, POMETA2600, POMETA2700, POMETA2800, POMETA2900, POMETA3000, POMETA3001, POMETA4000, POMETA4001, POMETA4100, POMETA4200, POMETA4300, POMETA4400, POMETA4500, POMETA4600, POMETA5200, POMETA5201, POMETA5202, POMETA5203, POMETA5204, POMETA5205, POMETA5206, POMETA5207, POMETA5208, POMETA5300, POMETA5900, POMETA5901, POMETA6000, POMETA6001, POMETA6002, POMETA6100, POMETA6101, POMETA6200, POMETA6201, POMETA6202, POMETA6500, POMETA6501, POMETA7200, POMETA9200, POMETA9300, POMETB1000, POMETB1001, POMETB1002, POMETB2100, POMETB2101, POMETB2200, POMETB2201, POMETB2300, POMETB2301, POMETB2400, POMETB2401, POMETB2500, POMETB2501, POMETB2502, POMETB2600, POMETB2601, POMETB2700, POMETB2701, POMETB2800, POMETB2801, POMETB2900, POMETB2901, POMETB2902, POMETB4300, POMETB4301, POMETB4400, POMETB4401, POMETB4500, POMETB4501, POMETB4600, POMETB4601, POMETB5200, POMETB5201, POMETB5500, POMETB5501, POMETB6000, POMETB6100, POMETB6200, POMETB6300, POMETB6400, POMETB6500, POMETB7100, POMETB9200, POMETB9300
Revision	5
Revision Date	31 Jan 2023
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

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EPA (New Zealand) Environmental Protection Authority of New Zealand

deg F (°F) Degrees Fahrenheit

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 insoluble 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 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