

Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : POTASSIUM PEROXYMONOSULPHATE

1.2 Other means of identification

Potassium monopersulphate, potassium hydrogen peroxymonosulphate, HO₅S.HO₄S.K.O₅S

1.3 Recommended use of the product and restrictions on use

For industrial use, water sanitation, non-chlorine bleaching.

1.4 Details of supplier of the safety data sheet

Company : AGent Sales & Services Pty Ltd

Street address : 38 May Holman Drive, Bassendean, Western Australia 6054

Telephone : (+61 8) 6270 4500

Fax : (+61 8) 6270 4544

1.5 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

Acute toxicity, Oral (Category 4)

Skin corrosion (Category 1A)

Serious eye damage (Category 1)

Hazard to the aquatic environment (Category 3)

2.2 GHS Label elements, including precautionary statements

Pictogram :



Signal word : DANGER

Hazard statement(s)

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H318

Causes serious eye damage.

H412

Harmful to aquatic life with long lasting effects

Precautionary statement(s)

Prevention

P260

Do not breathe gas/mist/vapours/spray.

P262

Do not get in eyes, on skin or on clothing.

P273

Avoid release to the environment

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P315	Get immediate medical advice/attention.

Storage

P410 + P403	Protect from sunlight. Store in well ventilated place.
P405	Store locked up.

Disposal

P501	Dispose of contents / container to an approved waste disposal plant.
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2.3 Other hazards**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component	CAS Number	Classification	Concentration (%)
Potassium Peroxymonosulphate	70693-62-8	Acute Tox. 4; Skin Corr. 1A; Eye Dam. 1; Haz. Aquat. Enviro. 3	> 99

For the full text of the H-Statements mentioned in this section, see Section 16

4. FIRST AID MEASURES**4.1 Description of First Aid measures****General advice**

Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Call a physician or poison control centre immediately. If unconscious place in recovery position and seek medical advice. Keep respiratory tract clear. If breathed in, move person into fresh air.

In case of skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before re-use. If on skin, rinse well with water. If on clothes, remove clothes. If symptoms persist, call a physician.

In case of eye contact

Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed

Keep respiratory tract clear. Do NOT induce vomiting. Call a physician immediately. Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

4.4 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

In case of fire, appropriate extinguishing media include Carbon dioxide (CO₂) and Dry chemical. Do NOT use high volume water jet. Cool closed containers exposed to fire with water spray.

5.2 Special hazards arising from the chemical

Non-combustible solid. Avoid generating dust. Incompatible with accelerators, strong acids and bases, heavy metal salts, reduction mediums, impurities (rust, dust, ash), and sources of ignition. Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

5.3 Special protective equipment and precautions for fire fighters

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves) or chemical splash suit. Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.

5.4 Hazchem code

2X

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personnel involved in the clean-up should wear full protective clothing as listed in section 8. Avoid accidents, clean up immediately. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Stop leak if safe to do so. Isolate the danger area. Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up

Slippery when spilt. Avoid accidents, clean up immediately. Eliminate all sources of ignition. Use clean, non-sparking tools and equipment. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation.

With small spills – dilute product with lots of water and rinse away. Prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Do not use textiles, saw dust or combustible substances. Collect and seal in properly labelled containers or drums for disposal according to local regulations (see Section 13). Never return spilled product into its original container for re-use.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure an eye bath and safety shower are available and ready for use. Do not swallow. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Product is hygroscopic. Never pour product residue back into storage container. Risk of decomposition. Keep away from combustible materials. Avoid dust formation. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed. No Smoking. Avoid impurities (e.g. rust, dust, ash), risk of decomposition. Protect from moisture. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Avoid impurities (e.g. rust, dust, ash), risk of decomposition. Protect from moisture. Store apart from other dangerous and incompatible substances.

This product has a UN classification of 3260 and a Dangerous Goods Class 8 (corrosive) according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Inhalation, Long-term systemic effects, 0.28 mg/m³,
Inhalation, Acute systemic effects, 50 mg/m³,
Inhalation, Long-term local effects 0.28 mg/m³,
Inhalation, Acute local effects, 50 mg/m³,
Skin contact, Long-term systemic effects, 20 mg/kg bw/day,
Skin contact, Acute systemic effects, 80 mg/kg bw/day,
Skin contact, Acute local effects, 0.449 mg/cm²

Occupational Exposure Limits

No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified :

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m ³	ppm	mg/m ³		
Inspirable dust	ASCC		10			-	-
Respirable dust	ASCC		3				

As published in “Workplace Exposure Standards for Airborne Contaminants, December 2011” by SWA.

The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limits

None allocated for this product.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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. Adequate ventilation should be provided so that exposure limits are not exceeded. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal protective equipment (PPE)

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

Eye/face protection

Tight fitting chemical splash goggles and full face shield or basket shaped glasses. See Australian Standards (AS/NZS 1336 & 1337).

Skin protection

Wear protective gloves (Natural rubber: 1mm thickness. Break through time >480 min / Nitrile rubber: 0.33mm thickness. Break through time > 480 min / Butyl-rubber: 0.7mm thickness. Break through time > 480 min) and protective, acid-proof clothing (splash apron or equivalent chemical impervious outer garment and rubber boots) appropriate for the risk of exposure. See Australian Standards (AS 2161, AS 3765 & AS 2210). Gloves must be inspected prior to use. Use proper

glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands. Wash contaminated clothing and other protective equipment before storage or re-use.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. See Australian Standards (AS 1715 & AS 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Solid Colour : White
Odour:	Odourless
Odour Threshold:	No data available
pH:	2-3 @ 10 g/L
Melting Point:	Decomposes
Boiling Point / Range	No data available
Decomposition Temperature:	> 80 °C
Evaporation Rate:	No data available
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Density:	1.1 Kg/m ³
Vapour Density (air=1):	No data available
Vapour Pressure:	No data available
% Volatiles:	No data available
Solubility in water:	300 g/L @ 20 °C

10. STABILITY AND REACTIVITY

10.1 Reactivity

Product is an oxidising agent and reactive.

10.2 Chemical stability

Stable under recommended storage conditions. Commercial products are stabilised to reduce risk of decomposition due to contamination.

10.3 Possibility of hazardous reactions

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition. Hazardous reactions: Even small amounts of moisture or impurities can noticeably reduce SADT.

10.4 Conditions to avoid

Avoid excessive heat, elevated temperatures, sunlight, flame, sources of ignition and shock, dust generation, moisture/high humidity, and incompatible materials. Dust may form explosive mixture in air.

10.5 Incompatible materials

Incompatible with accelerators, strong acids and bases, heavy metal salts, reduction mediums, impurities (rust, dust, ash), and sources of ignition. Keep away from heat and sources of ignition. Protect from moisture.

10.6 Hazardous decomposition products

Decomposition products under conditions of thermal decomposition: steam, oxygen. Release of oxygen may support combustion.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity (STOT) - single exposure

No data available

Specific target organ toxicity (STOT) - repeated exposure

No data available

Aspiration hazard

No data available

Health Effects

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:

Eye contact : An eye irritant. Causes burns. Extreme irritation up to cauterisation. Can cause severe conjunctivitis, cornea damage or irreversible eye damage. Symptoms may occur with delay.

Skin contact : Causes burns. Causes caustic burns. With increasing contact time, local erythema or extreme irritation (whitening) up to blistering (caustic burn) can occur.

Ingestion : Causes burns. Swallowing can lead to bleeding of the mucosa in the mouth, oesophagus and stomach. The rapid releasing of oxygen can cause distension and bleeding of the mucosa in the stomach and lead to severe damage of the internal organs, especially in the event of greater intake of the product.

Inhalation : Causes burns. Inhalation of vapour/aerosols can lead to irritation of the respiratory tract and cause inflammation of the respiratory tract and pulmonary oedema. Symptoms may occur with delay.

11.2 Information on possible routes of exposure

The substance can be absorbed into the body by skin & eye contact, ingestion and by inhalation.

11.3 Additional Information

RTECS: MX0899500

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Avoid contaminating waterways.

Toxicity to fish:

Chronic toxicity: NOEC: 0.444 mg/l, Exposure time: 37 d, Species: *Cyprinodon variegatus* (sheepshead minnow)

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 53 mg/l, Exposure time: 96 h

NOEC (*Oncorhynchus mykiss* (rainbow trout)): 27 mg/l, Exposure time: 96 h

Toxicity to daphnia & other aquatic invertebrates

Chronic toxicity; NOEC: 0.267 mg/l, Exposure time: 96 h This product has no known ecotoxicological effects. Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. All empty packaging should be disposed of as unused product.

13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility.

14. TRANSPORT INFORMATION

Classified as a DANGEROUS GOODS by the criteria of the ADG Code for transport by road or rail

Classified as a DANGEROUS GOODS by the criteria of the IMDG Code for transport by sea

Classified as a DANGEROUS GOODS by the criteria of the IATA Code for transport by air

14.1 UN number

ADG : 3260

IMDG : 3260

IATA : 3260

14.2 Proper shipping name

ADG : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

IMDG : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

IATA : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

14.3 Transport hazard class

ADG : Corrosive - 8

IMDG : Corrosive - 8

IATA : Corrosive - 8

14.4 Packing group

ADG : II

IMDG : II

IATA : II

14.5 Environmental hazards

ADG : No

IMDG Marine Pollutant : No

IATA : No

14.6 Special precautions for users

No data

14.7 Hazchem code

ADG : 2X

IMDG EMS : FA, SB

14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule : 6

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

AICS On the inventory, or in compliance with the inventory.

16. OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
IARC	International Agency for Research on Cancer
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Ox. Liq.	Oxidising liquids
Skin Corr.	Skin corrosion
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
IC ₅₀	Inhibitory concentration that inhibits 50% of a specific biological or biochemical function within a specified time
LC ₅₀	Lethal concentration that kills 50% of an animal population within a specified time
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm ³	Grams per cubic centimetre
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA
Work Health and Safety Regulations 2011

Reason(s) for Issue:

Revised primary SDS
Alignment to GHS requirements

Disclaimer

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