

Safety Data Sheet SODIUM PERSULFATE

SDS no. BOCPCGVF • Version 1.0 • Date of issue: 2024-08-13

SECTION 1: Identification

GHS Product identifier

Product name SODIUM PERSULFATE

Other means of identification

Product Product Name

SODIUM PERSULFATE LR SL096

Sodium peroxodisulfate, Sodium peroxydisulfate

Recommended use of the chemical and restrictions on use

Bleaching agent (fats, oils, fabrics, soap), battery depolarisers, emulsion polymerisation; laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

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.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4
- Serious eye damage/eye irritation, Cat. 2A
- Oxidizing solids, Cat. 3
- Respiratory sensitizer, Cat. 1

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- Skin corrosion/irritation, Cat. 2
- Skin sensitizer, Cat. 1
- Specific target organ toxicity following single exposure, Cat. 3

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use agents recommended in Section 5 of SDS for extinction
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 238.1

Components

Component	CAS no.	Concentration
SODIUM PERSULFATE (EC no.: 231-892-1)	7775-27-1	98 - 100 % (weight)
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4; Oxidizing solids, Cat. 3; Skin corrosion/irritation, Cat. 2; Skin sensitizer, Cat. 1; Respiratory sensitizer, Cat. 1; Serious eye damage/eye irritation, Cat. 2A; Specific target organ toxicity following single exposure, Cat. 3. HAZARDS: H272 - May intensify fire; oxidizer; H302 - Harmful if swallowed; H315 - Causes skin irritation; H317 - May cause an allergic skin reaction; H319 - Causes serious eye irritation; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
In case of skin contact	Remove contaminated clothing and wash affected skin with soap and water. If irritation occurs seek medical advice.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
If swallowed	Rinse mouth thoroughly with water immediately. Give water to drink. DO NOT induce vomiting. Seek immediate medical assistance.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use flooding quantities of water. DO NOT use dry chemical, CO2 or foam.

If safe to do so, move undamaged containers from the 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 the fire is out. If possible, withdraw from area and let it burn. Avoid getting water inside the containers; a violent reaction may occur. Dam fire control water for later disposal.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire (sulfur oxides).

Will accelerate burning when involved in a fire. May explode on heating, shock, friction or contamination. May react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, clothing, etc). Fire may produce irritating, poisonous, and/or corrosive gases. Containers may explode on heating. Runoff may create fire or explosion hazard.

Special protective actions for fire-fighters

Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Do not contaminate. Keep combustibles (wood, paper, clothing, oil, etc.) away from the spilled material. 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 a 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.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin and eyes. Wash hands and face thoroughly after working with material. Wear suitable protective clothing.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place. Store away from heat, sparks, open flame, sources of ignition and combustibles. Keep containers closed at all times. Use only plastic and stainless steel containers.

Corrosive in presence of aluminium, copper, steel and zinc. Non-corrosive in presence of glasses.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 7775-27-1

Sodium persulfate

AU/SWA (Australia): 0.01 Peak limitation mg/m³ TWA inhalation

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face 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.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

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.

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.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	White crystalline powder.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	~180 °C (decomposes)
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	3.5 - 3.8 (100 g/l, H ₂ O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (238.1 g/l @ 20 °C) Solubility in Organic Solvents: Insoluble in methanol, ether, n-octanol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.4
Relative vapor density	No data available.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Decomposes in moist air. Decomposed by alcohol.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

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Reacts with incompatible materials

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts with acids, alkalis and reducing agents to release oxygen.

May cause fire if in contact with other chemicals, paper and other flammable materials.

Conditions to avoid

Exposure to moisture. Heat, flames, ignition sources and incompatibles.

Incompatible materials

Acids, iron and steel, finely powdered metals, reducing agents, strong bases, heavy metals, sodium peroxides, water, organic materials and alcohols.

Hazardous decomposition products

Decomposes if stored under excessive heat and/or moisture, generates heat and releases oxides of sulfur and sodium, dense mists of sulfuric acid and oxygen.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 920 mg/kg (IUCLID)

Ingestion: Harmful if swallowed. Causes severe irritation and possible burns to the mouth and throat. Gastrointestinal disturbances may be expected with nausea, headaches, abdominal pain and vomiting. May be fatal.

Inhalation: Causes irritation to the mucous membranes and the respiratory tract. Symptoms may include sore throat, shortness of breath, coughing, inflammation of the nasal passage, and wheezing. May cause lung edema, a medical emergency. May cause sensitisation by inhalation. Asthma-like symptoms and life-threatening shock may result. May cause pulmonary oedema (latency time until onset of action).

// ----- From the Suggestion report (01/08/2024, 12:53 PM) ----- //

The ATE (oral) of the mixture is: 500 mg/kg bw

Skin corrosion/irritation

Contact causes severe irritation or burns. Symptoms include redness, itching, and pain. May cause sensitisation by skin contact.

Serious eye damage/irritation

Causes severe irritation or burns with eye damage.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Germ cell mutagenicity

No data available.

Carcinogenicity

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No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

Chronic Effects: Repeated or prolonged skin contact may cause chronic dermatitis and may cause allergic reactions in sensitive individuals.

SODIUM PERSULFATE: Carcinogenicity:

CAS# 7775-27-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: The occurrence of frequent skin rashes, causing both irritant dermatitis & hypersensitivity reactions, was found in workers producing ammonium & potassium persulfates. The rashes were reduced by the use of protective clothing & gloves & improved dustremoval from the workplace air. Others reported asthma in hairdressers that was induced by exposure to persulfates.

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

SECTION 12: Ecological information

Toxicity

Reacts with water to form toxic decomposition products. Harmful effect due to pH shift.

Acute Toxicity - Fish: LC50 (Onchorhynchus mykiss): 163 mg/l/96 h.

Acute Toxicity - Daphnia: EC50 (Daphnia magna): 133 mg/l/48 h.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1505
Class: 5.1
Packing Group: III
Proper Shipping Name: SODIUM PERSULFATE

Hazchem emergency action code (EAC)

2W

IMDG

UN Number: 1505
Class: 5.1
Packing Group: III
EMS Number:
Proper Shipping Name: SODIUM PERSULFATE

IATA

UN Number: 1505
Class: 5.1
Packing Group: III
Proper Shipping Name: SODIUM PERSULFATE

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia 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 ChemSupply Australia 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 ChemSupply Australia 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.

Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

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National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)