

Safety Data Sheet SODIUM PEROXIDE

SDS no. HFU7JAVS • Version 1.0 • Date of issue: 2025-11-30

SECTION 1: Identification

GHS Product identifier

Product name SODIUM PEROXIDE

Other means of identification

Product Product Code

SODIUM PEROXIDE AR SA111
Sodium dioxide, Sodium superoxide

Recommended use of the chemical and restrictions on use

Oxidising agent; bleaching of miscellaneous materials including paper and textiles; deodorant; antiseptic; organic chemicals; water purification; pharmaceuticals; oxygen generation for diving bells and submarines; textile dyeing and printing; ore processing; analytical reagent; calorimetry; germicidal soaps and 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.

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Oxidizing solids, Cat. 1
- Skin corrosion/irritation, Cat. 1A

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GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H271
H314

May cause fire or explosion; strong oxidizer
Causes severe skin burns and eye damage

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.

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P264

Wash hands thoroughly after handling.

P280

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

P283

Wear fire resistant or flame retardant clothing.

P301+P330+P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

P306+P360

IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P310

Immediately call a POISON CENTER/doctor/physician

P363

Wash contaminated clothing before reuse.

P370+P378

In case of fire: Use agents recommended in Section 5 of SDS for extinction

P371+P380+P375

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

P405

Store locked up.

P420

Store separately.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	77.98
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Information on Composition: Active oxygen content about 20% by weight.

Component	Identification	Weight %
Sodium peroxide	CAS no.: 1313-60-6 EC no.: 215-209-4 Index no.: 011-003-00-1	93 - <= 100 %

SECTION 4: First-aid measures

Description of necessary first-aid measures

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General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once). First Aid Facilities: Maintain eyewash fountain in work area.
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	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention.
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	DO NOT INDUCE VOMITING. Wash out mouth with water. Seek immediate medical attention.

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 in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

DO NOT USE WATER OR FOAM.

Small fire: Use dry chemical, soda ash, lime or dry sand.

If safe to do so, move undamaged containers from fire area.

Large fire: Use DRY sand, dry chemical, soda ash or lime or withdraw and let fire burn.

Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.

Specific hazards arising from the chemical

Hazards from Combustion Products: May liberate toxic fumes in fire such as carbon and sodium oxides.

Has a fire-promoting effect due to the release of oxygen, may ignite combustibles (wood, paper, clothing, etc). May react with water producing hydrogen peroxide. May react explosively with hydrocarbons (fuels).

Special protective actions for fire-fighters

Wear SCBA and fully-encapsulating, gas/liquid-tight suit when handling these substances. Structural firefighter's uniform is NOT effective for these materials.

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

[3B] Spills & Disposal: ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 15m.

Do not touch or walk through spilled material.

Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.

Water spray may be used to knock down vapours or divert vapour clouds.

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DO NOT GET WATER inside containers or in contact with substance.

Small spill

Cover with DRY earth, sand or other non-combustible material followed by a plastic sheet to minimize spreading or contact with rain.

Large Spill

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

void substance contact and generation and inhalation of dust.

Conditions for safe storage, including any incompatibilities

Store in well ventilated area. Keep containers closed at all times. Keep dry and protect from direct sunlight. Store at room temperature (15 - 25 °C).

Store away from combustible materials. Prevent all contact with water and with moist atmosphere. Store away from sources of heat or ignition.

SECTION 8: Exposure controls/personal protection

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.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/ NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Yellowish-white powder turning yellow when heated.
Color	Yellowish-white
Odor	Odourless.

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Odor threshold	
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	657 °C (decomposes)
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	750 °C
Oxidizing properties	No data available.
pH	12.8 (100 g/l, H2O)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: 100 g/L @ 20 °C (violent decomposition).
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	No data available.
Density and/or relative density	Specific Gravity: 2.805
Relative vapor density	No data available.
Particle characteristics	No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Reacts with incompatible materials

Chemical stability

Absorbs water and carbon dioxide from air. Hygroscopic.

Possibility of hazardous reactions

Reactivity: Fire promoting effect due to the release of oxygen.

Contact with organic or combustible material may cause fire, may form explosive mixtures with combustible materials. Extremely violent explosion with perchloric acid. Reacts violently with acetic anhydride, acetic acid, aluminium, aniline, antimony, arsenic, benzene, BN, calcium carbide, charcoal, copper, potassium nitrate with dextrose, ethyl ether, hydrogen sulfide, glycerine, hexamethylenetetramine, magnesium, manganese dioxide, phosphorous, potassium, reducing agents, sodium, tin, zinc, SCl, selenium chloride, silver chloride with charcoal and water evolving oxygen and intense heat and producing a corrosive alkaline solution. Violent explosive reaction with ammonium persulphate if heated. Reacts readily with carbon dioxide and moisture to liberate hydrogen peroxide. Powdered metals will ignite if mixed with peroxides as will hydrogen sulfide.

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Conditions to avoid

Do not allow water to enter container because of violent reaction. Exposure to moisture. Strong heating.

Incompatible materials

Acetic anhydride, acetic acid, acetic acid anhydride, acids, alcohols, aluminium, with ammonium persulphate, ammonium compounds, analine, anilines, antimony, arsenic, benzene, benzene derivatives, BN, boron, calcium carbide, carbides, carbon, carbon disulfide, charcoal, copper, potassium nitrate with dextrose, ethanol, ethyl ether, hydrogen sulfide, glycerine, hexamethylenetetramine, magnesium, manganese dioxide, metallic chlorides, organic or combustible material (risk of explosion), perchloric acid, performic acid, phosphorous, potassium, powdered metals, reducing agents, sodium, sodium thiosulphate, tin, zinc, SCl, selenium chloride, silver chloride with charcoal and water.

Hazardous decomposition products

Carbon monoxide, carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: Ingestion of material causes severe burns to the mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. Symptoms may include burning sensation in the mouth, vomiting, diarrhoea, pain, shock and collapse. Risk of perforation in the oesophagus and stomach.

Inhalation: Inhalation of dust causes burns and destruction to the tissues of the mucous membranes of the respiratory tract. Symptoms include of coughing and dyspnoea. Inhalation may lead to the formation of respiratory tract oedemas, i.e. pulmonary oedema.

Skin corrosion/irritation

Causes severe skin burns. Causes poorly healing wounds. May be harmful if absorbed through the skin.

Serious eye damage/irritation

Causes severe eye burns. Risk of serious damage to eyes. Risk of blindness!

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

SECTION 12: Ecological information

Toxicity

Harmful effect due to pH shift. Do NOT allow to enter waters, waste water or soil!

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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: 1504

Class: 5.1

Packing Group: I

Proper Shipping Name: SODIUM PEROXIDE

Hazchem emergency action code (EAC)

1W

IMDG

UN Number: 1504

Class: 5.1

Packing Group: I

EMS Number:

Proper Shipping Name: SODIUM PEROXIDE

IATA

UN Number: 1504

Class: 5.1

Packing Group: I

Proper Shipping Name: SODIUM PEROXIDE

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.

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

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)