

Safety Data Sheet di-SODIUM HYDROGEN ORTHOPHOSPHATE Heptahydrate

SDS no. B84HNV03 • Version 1.0 • Date of issue: 2025-10-26

SECTION 1: Identification

GHS Product identifier

Product name di-SODIUM HYDROGEN ORTHOPHOSPHATE Heptahydrate

Other means of identification

Product	Product Code
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di-SODIUM HYDROGEN ORTHOPHOSPHATE Heptahydrate AR	SA203
Disodium hydrogen phosphate, Disodium orthophosphate, Disodium acid phosphate, Sodium phosphate dibasic, Disodium phosphate	

Recommended use of the chemical and restrictions on use

Chemicals, fertilizers, pharmaceuticals, textiles (weighting silk, dyeing and printing), boiler-water treatment, fireproofing wood and paper, detergents, ceramic glazes, soldering enamels, tanning, galvanoplastics, cheese, dietary supplement, buffer, sequestrant in foods, analytical reagent 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

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as non-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

Not a hazardous substance or mixture.

GHS label elements, including precautionary statements

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Not a hazardous substance or mixture.

Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	268.07
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Component	Identification	Weight %	Classifications
Sodium phosphate dibasic, heptahydrate	CAS no.: 7782-85-6 EC no.: 237-707-0	<= 100 %	CLASSIFICATIONS: No data available. HAZARDS: No data available.

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

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. Get medical aid if cough or other symptoms appear.

In case of skin contact

Rinse with plenty of water. Get medical attention if irritation develops and persists.

In case of eye contact

If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If persistent irritation occurs, obtain medical attention.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

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

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical

May liberate toxic fumes in fire including Phosphorous oxides and sodium oxides.

Special protective actions for fire-fighters

Wear SCBA and structural firefighter's uniform.

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Do not eat, drink or smoke while handling. Wash hands with soap and water after handling. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Corrosiveness: May be mildly corrosive to steel and aluminum.

Store in a well ventilated place. Keep container tightly closed. Store out of direct sunlight and away from incompatible materials. See Section 10 for information on Incompatible Materials.

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
Appearance

Solid
Colourless, translucent crystals or white powder.

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Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	48 °C
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	Loses 5H ₂ O @ 48 °C
Oxidizing properties	No data available.
pH	8.0-8.8 (1% solution)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Very soluble. Solubility in Organic Solvents: Very soluble in alcohol.
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: 1.679
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: Saline taste.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

May react violently in contact with strong acids.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Moisture.

Incompatible materials

Strong acids, antipyrine and lead acetate.

Hazardous decomposition products

Phosphorous oxides and sodium oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 12.93 g/kg - Heptahydrate (Smyth).

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Ingestion: Ingestion of large amounts may cause diarrhea, nausea, vomiting and cramps.

Inhalation: Dust and mist may be irritating to nose, throat and mucous membranes. May cause coughing and choking.

Skin corrosion/irritation

May cause mild irritation.

Serious eye damage/irritation

May cause mild irritation.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Germ cell mutagenicity: Not classified based on available information.

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.

Additional information

Chronic Effects: Repeated or prolonged skin contact may cause irritation or chronic dermatitis.

SECTION 12: Ecological information

Toxicity

Information on Ecological Effects: Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies. No ecological problems are to be expected when the product is handled and used with due care and attention.

Acute Toxicity - Fish: LC50 (Gambusia affinis): 467 mg/l/48 h (anhydrous substance)

Acute Toxicity - Daphnia: EC50 (Daphnia magna): 1089 mg/l/48 h (anhydrous substance).

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)

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Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

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

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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)