

Infosafe No™ 1CHKZ      Issue Date : October 2021      RE-ISSUED by CHEMSUPP

Product Name **SODIUM PERIODATE**

Classified as hazardous

## 1. Identification

**GHS Product Identifier** SODIUM PERIODATE

**Company Name** CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)

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**Recommended use of the chemical and restrictions on use** Oxidising agent, oxidizing manganese compounds to permanganate: used for this purpose in analytical chemistry, also used for oxidation of some organic compounds; tissue processing fixation; periodate-methylamine degradation of ribonucleotides; in screenprinting, as emulsion remover; source of periodic acid; analytical reagent; and laboratory reagent.

<b>Other Names</b>	<u>Name</u>	<u>Product Code</u>
	SODIUM PERIODATE AR	SA234
	Sodium iodate(VII)	
	Sodium metaperiodate	
	Sodium tetraoxoiodate(VII)	

### Other Information

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.

## 2. Hazard Identification

**GHS classification of the substance/mixture** Hazardous to the Aquatic Environment - Acute Hazard: Category 1  
Acute Toxicity - Oral: Category 4  
Eye Damage/Irritation: Category 1  
Oxidizing Solids: Category 1  
Specific Target Organ Toxicity - Repeated Exposure Category 1 (thymus gland)  
Skin Corrosion/Irritation: Category 1A

**Signal Word (s)** DANGER

**Hazard Statement (s)** H271 May cause fire or explosion; strong oxidiser.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.

**Pictogram (s)** Flame over circle, Health hazard, Corrosion, Environment



**Precautionary statement - Prevention** P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P220 Keep/Store away from clothing/.../combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.

Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
--------------------	---------------------------	-----------------------

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Classified as hazardous

<b>Precautionary statement – Response</b>	<p>P260 Do not breathe dust/fume/gas/mist/vapours/spray.  P264 Wash thoroughly after handling.  P270 Do not eat, drink or smoke when using this product.  P271 Use only outdoors or in a well-ventilated area.  P273 Avoid release to the environment.  P280 Wear protective gloves/protective clothing/eye protection/face protection.  P283 Wear fire/flame resistant/retardant clothing.  P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  P363 Wash contaminated clothing before reuse.  P306+P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  P310 Immediately call a POISON CENTER or doctor/physician.  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.  P370+P378 In case of fire: Use flooding quantities of water for extinction.  P405 Store locked up.</p>
<b>Precautionary statement – Storage</b>	
<b>Precautionary statement – Disposal</b>	<p>P501 Dispose of contents/container to an approved waste disposal plant.</p>

### 3. Composition/information on ingredients

Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Sodium periodate	7790-28-5	100 %

### 4. First-aid measures

<b>Inhalation</b>	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.
<b>Ingestion</b>	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.
<b>Skin</b>	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
<b>Eye contact</b>	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
<b>First Aid Facilities</b>	Maintain eyewash fountain and safety shower in work area.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of the patient.
<b>Other Information</b>	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

### 5. Fire-fighting measures

<b>Hazards from Combustion Products</b>	Toxic fumes of sodium oxides and iodine oxides, hydrogen iodide, iodine fumes, oxygen, possibly also free, or ionic iodide.
<b>Specific Methods</b>	<p>Small fire: USE FLOODING QUANTITIES OF WATER. Do not use dry chemicals, CO2 or foam. If safe to do so, move undamaged containers from fire area. Do not move cargo if cargo has been exposed to heat.</p> <p>Large fire: Flood fire area with water from a protected position. Cool containers with flooding quantities of water until well after fire is out - If impossible, withdraw from area and let fire burn. Avoid getting water inside containers: a violent reaction may occur. Dam fire control water for later disposal.</p>

Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
--------------------	---------------------------	-----------------------

Product Name **SODIUM PERIODATE**

Classified as hazardous

<b>Specific hazards arising from the chemical</b>	Will accelerate burning when involved in a fire. May explode from heating, shock, friction or contamination. Some will react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, clothing, etc). Fire may produce irritating, poisonous, and/or corrosive gases. Containers may explode when heated. Runoff may create fire or explosion hazard.
<b>Hazchem Code</b>	1W
<b>Decomposition Temp.</b>	300 °C
<b>Precautions in connection with Fire</b>	Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.

## 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Do not contaminate. Keep combustibles (wood, paper, clothing, oil, etc.) away from 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.
<b>Personal Precautions</b>	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.
<b>Personal Protection</b>	Wear protective clothing specified for normal operations (see Section 8)

## 7. Handling and storage

<b>Precautions for Safe Handling</b>	Avoid ingestion and inhalation of vapours and dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Ensure good ventilation at the workplace. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Protect against physical damage and moisture. Keep container dry. Keep away from heat and all sources of ignition. Separate from incompatibles, combustibles, flammable substances, reducing agents, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a tightly closed container, in a cool, dry, well-ventilated area away from incompatible substances. Light sensitive. Hygroscopic. Protect against physical damage, direct sunlight and moisture. Isolate from any source of heat, sparks, open flame and ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials, flammable substances and reducing agents. Oxidising materials should be stored in a separate safety storage cabinet or room. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
<b>Storage Regulations</b>	Refer Australian Standard AS 4326-1995 'The storage and handling of oxidizing agents'.
<b>Storage Temperatures</b>	Store at room temperature (15 to 25 °C recommended).

## 8. Exposure controls/personal protection

<b>Other Exposure Information</b>	No exposure standards have been established for this product by Safe Work Australia, however, the TWA exposure standard for dusts/mists not otherwise specified is 10 mg/m <sup>3</sup> . All atmospheric contamination should be kept to as low a level as is workable. These Workplace Exposure Standards are guides to be
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Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
--------------------	---------------------------	-----------------------

Product Name **SODIUM PERIODATE**

Classified as hazardous

<b>Appropriate engineering controls</b>	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. Maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
<b>Respiratory Protection</b>	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.
<b>Eye Protection</b>	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.
<b>Hand Protection</b>	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
<b>Personal Protective Equipment</b>	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
<b>Body Protection</b>	Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
<b>Hygiene Measures</b>	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

## 9. Physical and chemical properties

<b>Form</b>	Solid
<b>Appearance</b>	White, colourless to light yellow crystalline powder or granules.
<b>Odour</b>	Odourless
<b>Decomposition Temperature</b>	300 °C
<b>Melting Point</b>	300 °C (decomposes).
<b>Solubility in Water</b>	Soluble (107 g/l water @ 20 °C).
<b>Specific Gravity</b>	3.86 at 16 °C
<b>pH</b>	pH 3.5-5.5 (107g/l H <sub>2</sub> O @ 25 °C)
<b>Volatile Component</b>	0 %vol @ 21 °C
<b>Flammability</b>	Not combustible but assists combustion of other substances.
<b>Explosion Properties</b>	May explode when exposed to mechanical shock or friction or can cause explosions with combustible materials. May decompose explosively when heated. Forms explosive mixtures with reducing agents, finely powdered metals, magnesium.
<b>Molecular Weight</b>	213.89
<b>Oxidising Properties</b>	Strong oxidiser. May ignite combustible material, liberating oxygen.

Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
--------------------	---------------------------	-----------------------

Product Name **SODIUM PERIODATE**

Classified as hazardous

**Other Information** Soluble in nitric, sulfuric and acetic acids.

## 10. Stability and reactivity

**Chemical Stability** Stable under ordinary conditions of use and storage. Light sensitive.  
Hygroscopic

**Conditions to Avoid** Heat, flame, ignition sources, shock, friction, incompatibles, moisture, light, dust generation.

**Incompatible Materials** Some organic compounds or reducing agents, finely-divided metal, such as aluminium or magnesium, hydrides, ammonium perchlorate, ammonium compounds, combustible substances, easily oxidized materials, flammable substances.

**Hazardous Decomposition Products** Toxic fumes of sodium oxides and iodine oxides, hydrogen iodide, iodine fumes, oxygen, possibly also free, or ionic iodide.

**Possibility of hazardous reactions** Forms explosive mixtures with reducing agents and finely powdered metals, such as aluminium or magnesium.  
Substance may react violently with some organic compounds, hydrides and ammonium perchlorate.  
Reacts with flammable substances.

**Hazardous Polymerization** Will not occur.

## 11. Toxicological Information

**Ingestion** Harmful if swallowed. Corrosive if swallowed. Causes burns of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract. May cause gastrointestinal upset with symptoms of abdominal pain, vomiting, and diarrhoea.

**Inhalation** May cause irritation to mucous membranes and respiratory tract, with symptoms of burning, sneezing, coughing and possible shortness of breath. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

**Skin** Causes burns, irritation or reddening of moist skin on prolonged contact. Can produce inflammation, characterized by itching, scaling, reddening, or, occasionally, blistering.

**Eye** Causes severe eye burns, irritation, redness and pain. Can cause inflammation, characterized by redness, watering, and itching. Eye contact can result in corneal damage or blindness.

**Respiratory sensitisation** Not classified based on available information.

**Skin Sensitisation** Not classified based on available information.

**Germ cell mutagenicity** Not classified based on available information.

**Carcinogenicity** Not listed in the IARC Monographs.  
Not classified based on available information.

**Reproductive Toxicity** Not classified based on available information.

**STOT-single exposure** Not classified based on available information.

**STOT-repeated exposure** Specific Target Organ Toxicity - Repeated Exposure Category 1 (thymus gland)  
H372 Causes damage to organs through prolonged or repeated exposure.

**Chronic Effects** Repeated ingestions may cause kidney dysfunction or failure and blood conditions such as haemolysis. Central nervous system may be affected.  
Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Serious eye damage/irritation** Eye Damage/Irritation: Category 1  
H314 Causes severe skin burns and eye damage.

Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
--------------------	---------------------------	-----------------------

Product Name **SODIUM PERIODATE**

Classified as hazardous

**Skin corrosion/irritation** Skin Corrosion/Irritation: Category 1A  
H314 Causes severe skin burns and eye damage.

## 12. Ecological information

**Ecological Information** Hazardous to the Aquatic Environment - Acute Hazard: Category 1  
H400 Very toxic to aquatic life.

**Persistence and degradability** Methods for the determination of biodegradability are not applicable to inorganic substances.

**Environmental Protection** Do not allow to enter waters, waste water, or soil!

## 13. Disposal considerations

**Disposal Considerations** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

## 14. Transport information

**Transport Information** Dangerous Goods of Class 5.1 Oxidising Agents 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.

**U.N. Number** 3085

**UN proper shipping name** OXIDIZING SOLID, CORROSIVE, N.O.S. - (Sodium periodate)

**Transport hazard class(es)** 5.1

**Sub.Risk** 8

**Hazchem Code** 1W

**Packing Group** I

**EPG Number** 5C2

**IERG Number** 31

## 15. Regulatory information

**Regulatory Information** All the constituents of this product are listed on the Australian Inventory of Chemical Substances ( AICS ), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

**Poisons Schedule** Not Scheduled

## 16. Other Information

**Literature References** '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'.  
Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand.  
Safe Work Australia, 'Hazardous Chemical Information System'.  
Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'.  
Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.

**Contact Person/Point** Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**  
All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we

Infosafe No™ 1CHKZ	Issue Date : October 2021	RE-ISSUED by CHEMSUPP
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Product Name **SODIUM PERIODATE**

Classified as hazardous

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**Empirical Formula  
& Structural  
Formula**

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