Safety Data Sheet SODIUM NITRITE

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SECTION 1: Identification

GHS Product identifier

Product name	SODIUM NITRITE

Other means of identification

Product	Product Code
Sodium NItrite AR	SA002
Sodium Nitrite FG	SP002
Sodium Nitrite LR	SL002
Sodium Nitrite TG	ST002

Recommended use of the chemical and restrictions on use

Diazotization (by reaction with hydrochloric acid to form nitrous acid), rubber accelerators, synthesis of organic products, colour fixative and preservative in cured meats, meat products, fish, pharmaceuticals, photographic reagent, analytical reagent, dye manufacture, oxidizing agent, antidote for cyanide poisoning 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.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 3
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Serious eye damage/eye irritation, Cat. 2A
- Oxidizing solids, Cat. 3

GHS label elements, including precautionary statements

Pictograms

Signal word	**Danger**

Hazard statement(s)

H272	May intensify fire; oxidizer
H301	Toxic if swallowed
H319	Causes serious eye irritation
H400	Very toxic to aquatic life

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.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physcian
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use agents recommended in Section 5 of SDS for extinction
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight	69

Component	Identification	Weight %
Sodium nitrite	CAS no.: 7632-00-0 EC no.: 231-555-9 Index no.: 007-010-00-4	<= 100 %

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. 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	Do not induce vomiting. Wash out mouth thoroughly 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, 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
Oxidiser solid
Small fire: Do not use water spray, dry chemicals, CO2 or foam.
Large fire: Flood fire area with water or fire resistant foam from a protected position. Dam fire control water for later disposal.

Specific hazards arising from the chemical
Will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, clothing, etc). Fire may produce irritating, poisonous, and/or corrosive gases.

Special protective actions for fire-fighters
Wear SCBA and chemical splash suit. Structural firefighter's uniform will provide limited protection.

Further information
Dangerous fire and explosion risk when heated to 537 °C.

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
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. Prevent entry into waterways, drains or confined areas. Prevent exposure to heat.

Use clean non-sparking tools to transfer material (avoid dust generation) to a clean, dry plastic container and cover loosely. Move container from spill area.

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
Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

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 and 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	White or slightly yellowish deliquescent crystals or powder.
Color	White or slightly yellowish
Odor	Odourless.
Odor threshold	
Melting point/freezing point	271 °C (decomposes)
Boiling point or initial boiling point and boiling range	320 °C
Flammability	No data available.
Lower and upper explosion limit/ flammability limit	No data available.
Flash point	No data available.
Explosive properties	Explodes at 537 °C
Auto-ignition temperature	490 °C
Decomposition temperature	280 °C

Oxidizing properties	Oxidizing Solid: Category 3
pH	~ 9 (50 g/l, H2O)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (820 g/L @ 20 °C). Solubility in Organic Solvents: Slightly soluble in alcohol and ether.
Partition coefficient n-octanol/ water (log value)	log P(o/w): -3.7 (experimentally)
Vapor pressure	No data available.
Density and/or relative density	Specific Gravity: 2.168 @ 20 °C
Relative vapor density	2.39 (air=1)
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
Hygroscopic. Very slowly oxidises to nitrate on exposure to air. Decomposed even by weak acids with evolution of brown fumes of N2O3.

Possibility of hazardous reactions
Mixtures with ammonium salts or cyanides may explode. In contact with reducing agents, may cause fire or explosion.

Hazardous Polymerization: Will not occur.

Conditions to avoid
Strong heating, air and moisture.

Incompatible materials
Aluminium, ammonia, ammonium salts and ammonium compounds, combustible substances (danger of explosion!), aluminium, butadiene, cellulose, chlorates, cyanides, ethylene oxide, finely powdered metals, hydrazine and derivatives, hypophosphites, iodides, lithium, mercury salts, permanganate, potassium plus ammonia, phthalic acid, phthalic anhydride, strong reducers and strong acids, sodium thiosulfate, sodium amide, sodium disulphite, sodium thiocyanate, sulphites, tannic acid and vegetable astringent concoctions, infusions or tinctures, urea, unsaturated hydrocarbons, wood and organic matter.

Hazardous decomposition products
Oxides of carbon, nitrogen and metal oxide fume.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Acute Toxicity - Oral: LD50 (Rat): 158 mg/kg

Ingestion: Toxic if swallowed. After absorption: nausea, narcosis, cyanosis. After absorption of large quantities: vomiting, unconsciousness, drop in blood pressure, depressed respiration, collapse, methaemoglobinaemia.

Inhalation: Overexposure to high dust concentrations may result in mucosal irritation, persistent headache, dizziness, nausea, vomiting, cyanosis, coma, convulsions and death.

Skin corrosion/irritation
May cause skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

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.

Additional information
The following applies to nitrites/nitrates in general: the following may develop: methaemoglobinaemia. Nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Chronic Effects: Exposure to nitrites may cause nausea, vomiting, cyanosis and collapse into a coma. Small doses cause a fall in blood pressure, rapid pulse, muscle weakness, headache and visual disturbances. The following applies to nitrites in general: Nitrosamines have shown themselves to be carcinogenic in animal experiments.

SECTION 12: Ecological information

Toxicity
Acute Toxicity - Fish: Not classified based on available information.
Mortality NOEC (Onchorhynchus mykiss): 0.54 mg/l/96 h.

[8Y] Acute Toxicity - Daphnia: EC50 (Daphnia magna): 12.5 mg/l/48 h;

[8Z] Acute Toxicity - Algae: Desmodesmus subspicatus (green algae)- 100 mg/L - 72 h

Bioaccumulative potential
Behavious in environmental compartments: Distribution: log P(oct): -3.7 (experimental);
No bioaccumulation is to be expected.

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.

Sewage disposal
Behavious in environmental compartments: Distribution: log P(oct): -3.7 (experimental);
No bioaccumulation is to be expected.

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

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 1500
Class: 5.1, 6.1
Packing Group: III
Proper Shipping Name: SODIUM NITRITE

Hazchem emergency action code (EAC)
1[Z]

IMDG
UN Number: 1500
Class: 5.1, 6.1
Packing Group: III
EMS Number:
Proper Shipping Name: SODIUM NITRITE

IATA
UN Number: 1500
Class: 5.1, 6.1
Packing Group: III
Proper Shipping Name: SODIUM NITRITE

SECTION 15: Regulatory information

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

Australia SUSMP
Poison Schedule: S7

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 fot 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 Airbourne 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)