

Safety Data Sheet

1. IDENTIFICATION OF PRODUCT AND SUPPLIER

1.1 Product identifiers

Product name : SODIUM NITRITE

1.2 Other means of identification

Nitrous acid, sodium salt

1.3 Recommended use of the product and restrictions on use

No data available.

1.4 Details of supplier of the safety data sheet

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1.5 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

Oxidising solids (Category 2)

Acute oral toxicity (Category 3)

Acute aquatic environmental hazard (Category 1)

Serious eye damage / eye irritation (Category 2A)

GHS Label elements, including precautionary statements



Pictogram :

Signal word : Danger

Hazard statement(s)

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

Precautionary statement(s)

Prevention

P270 Do not eat, drink or smoke when using this product.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep / store away from clothing / organic material / combustible materials.

P221 Take any precaution to avoid mixing with combustibles / organic material.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P330 Rinse mouth.
P321 Specific treatment (see supplemental first aid instructions on this label).
P370+P378 In case of fire: Use water for extinction.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant.

2.2 Other hazards

None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Sodium Nitrite	7632-00-0	H272; H301; H319; H400	≥ 99

For the full text of the H-Statements mentioned in this section, see Section 16

4. FIRST AID MEASURES

4.1 Description of First Aid measures

General advice

Overexposure may cause; vomiting, convulsions, cyanosis, death, coma, methaemoglobinaemia, nausea. Risks of pulmonary oedema, symptoms may be delayed. Treat symptomatically. Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Remove victim from exposure to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth to mouth method. Seek medical attention immediately. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

In case of skin contact

Remove contaminated clothing. Immediately flush affected area with plenty of water for at least 15 minutes. Seek immediate medical attention. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.

In case of eye contact

Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical attention.

If swallowed

Rinse mouth immediately and then drink plenty of water, induce vomiting, seek medical attention.

4.2 First Aid facilities

Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Use water spray. DO NOT USE: ABC powder, carbon dioxide.

5.2 Special hazards arising from the chemical

Oxidiser: Contact with combustible material may cause fire. These substances will accelerate burning when involved in a fire. Some will react explosively with hydrocarbons (fuels). Some may decompose explosively when heated or involved in a fire. Runoff may create fire or explosion hazard. Thermal decomposition can lead to release of irritating gases and vapours such and nitrogen oxides.

Do not allow fire-fighting water to reach waterways, drains or sewers. Store fire-fighting water for treatment. Dam fire control water for later disposal.

5.3 Special protective equipment and precautions for fire fighters

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.

5.4 Hazchem code

1Z

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Increase ventilation. Ventilate closed spaces before entering them. Eliminate all sources of ignition. Evacuate personnel to safe areas. Keep out of low areas. For personal protection see Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up

Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Dike far ahead of spill for later disposal. Soak up spilled product using absorbent non-combustible material such as sand or soil. Avoid using sawdust or cellulose. When saturated, collect the material and transfer to a suitable, labelled chemical waste container and dispose of promptly as hazardous waste. Never return spills to original containers for re-use. Neutralize spill area and washings with soda ash or lime.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product vapours. Avoid prolonged or repeated exposure. Keep away from clothing and other combustible materials. Do not mix with combustible substances.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in Section 10. Keep away from heat and sources of ignition. Do not store near combustible materials.

This material is classified as a Dangerous Goods Class 5.1 Oxidising and Subsidiary Risk 6.1 Toxic by the criteria of the ADG Code and must be stored and handled in accordance with the relevant regulations.

This material is a Scheduled Poison S7 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Occupational Exposure Limits

No exposure standard has been established for this product by the Australian Safety & Compensation Council (ASCC); however, the exposure standard for dust not otherwise specified is 10 mg/m³ for inspirable dust and 3 mg/m³ for respirable dust.

Biological Limits

None allocated for this product.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements

Personal protective equipment (PPE)

The selection of PPE is dependent on a risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

Eye/face protection

Tightly fitting safety goggles with full face-shield. See Australian Standards (AS/NZS 1336 & 1337).

Skin protection

Wear elbow length protective gloves, protective clothing and safety footwear and splash apron appropriate for the risk of exposure. See Australian Standards (AS 2161 & 2919 and AS/NZS 3765/2210). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. See Australian Standards (AS/NZS 1715 & 1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Solid Colour : White to faint yellow
Odour:	Faint
Odour Threshold:	No data available
pH:	8-9 100 g/L @ 20 °C
Melting Point:	280 °C
Boiling Point/Range:	No data available
Decomposition Temperature:	> 320 °C
Evaporation Rate:	No data available
Flash Point:	Not applicable
Flammability Limits:	Not applicable
Specific Gravity:	2.17
Vapour Density (air=1):	No data available
Vapour Pressure:	No data available
% Volatiles:	No data available
Solubility in water:	Miscible with water

10. STABILITY AND REACTIVITY

10.1 Reactivity

Powerful oxidising agent.

10.2 Chemical stability

Stable under normal conditions of storage and handling. Slow decomposition occurs at room temperature (accelerated by exposure to light, air, organic matter and increases in temperature)

with formation of nitrogen oxides, which may colour the acid yellow or red. Containers may burst when heated.

10.3 Conditions to avoid

No data available.

10.4 Incompatible materials

Reducing agents, oxidisable substances, ammonium salts, amines, amine compounds, acids.

10.5 Hazardous decomposition products

Nitrogen oxides and sodium oxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Of high toxicity after single ingestion. There is a risk of damage to the blood and a single uptake. LD50 rat (oral): 180 mg/Kg

Skin corrosion/irritation

Not irritating to the skin

Serious eye damage/eye irritation

Eye contact causes irritation.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Under some conditions nitrites can enhance the formation of nitrosamines in vivo which are carcinogenic in animal studies.

Reproductive toxicity

No data available.

Specific target organ toxicity (STOT) - single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Specific target organ toxicity (STOT) - repeated exposure

No data available

Eye contact : May cause eye-irritation.

Skin contact : Not irritating to skin

Ingestion : Toxic if swallowed.

Inhalation : May cause respiratory irritation.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Avoid contaminating waterways. Very toxic (acute) to aquatic organisms.

Toxicity to fish:

LC₅₀ (96h) *Salmo gairdneri*, syn. *O. mykiss* = 0.54 – 26.3 mg/L

LC₅₀ (96h) aquatic crustacea = 4.93 mg/L

EC₅₀ (48 h) *Daphnia magna* = 15.4 mg/L

EC₅₀ (72 h) *Scenedesmus subspicatus* = > 100 mg/L

12.2 Persistence and degradability

Inorganic product which cannot be eliminated from water by biological purification processes.

12.3 Bioaccumulative potential

Accumulation in organisms is not to be expected.

12.4 Mobility in soil

Adsorption to solid soil phases is not expected.

12.5 Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number

ADG : 1500

IMDG : 1500

IATA : 1500

14.2 Proper shipping name

ADG : SODIUM NITRITE

IMDG : SODIUM NITRITE

IATA : SODIUM NITRITE

14.3 Transport hazard class(es)

ADG : 5.1 Oxidising (6.1)

IMDG : 5.1 Oxidising (6.1)

IATA : 5.1 Oxidising (6.1)

14.4 Packing group

ADG : III

IMDG : III

IATA : III

14.5 Environmental hazards

ADG : No

IMDG Marine Pollutant : Yes

IATA : No

14.6 Special precautions for users

No data

14.7 Hazchem code

ADG : 1Z

IMDG EMS : F-A, S-Q

14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

S7 Poison

Carcinogen classification under WHS Regulations 2011, Schedule 10

Not listed

Notification status

AICS On the inventory, or in compliance with the inventory.

16. OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
NIOSH	National Institute for Occupational Safety and Health
NOHSC	National Occupational Health and Safety Commission
RTECS	Registry of Toxic Effects of Chemical Substances.
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
Eye Dam.	Serious eye damage

Met. Corr.	Corrosive to metals
Ox. Liq.	Oxidising liquids
Skin Corr.	Skin corrosion
STOT SE3	Specific target organ toxicity (single exposure) - Category 3
H272	May intensify fire; oxidiser
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
LC ₅₀	Lethal concentration that kills 50% of an animal population within a specified time
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm ³	Grams per cubic centimetre
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA Work Health and Safety Regulations 2011

"Registry of Toxic Effects of Chemical Substances". Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

Reason(s) for Issue:

Revised primary SDS

Alignment to GHS requirements

Disclaimer

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