

# SAFETY DATA SHEET



Revision date: 06-Feb-2023

Revision Number 7

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** SODIUM NITRITE

**Product Code(s)** 000031030501

### Other means of identification

**UN number** 1500

**CAS No.** 7632-00-0

**Synonyms** Nitrous acid, sodium salt.

### Recommended use of the chemical and restrictions on use

**Recommended use** Chemical intermediate. Raw material. Corrosion inhibitor.

**Uses advised against** No information available

### Supplier

Ixom Operations Pty Ltd  
ABN: 51 600 546 512  
Level 8, 1 Nicholson Street  
Melbourne 3000  
Australia

Telephone Number: +61 3 9906 3000

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

<b>Oxidizing solids</b>	Category 3
<b>Acute toxicity - Oral</b>	Category 3
<b>Serious eye damage/eye irritation</b>	Category 2
<b>Acute aquatic toxicity</b>	Category 1

### SIGNAL WORD

Danger

### Label elements

Flame over circle  
Skull and crossbones  
Exclamation mark  
Environment



### **Hazard statements**

H272 - May intensify fire; oxidizer  
H301 - Toxic if swallowed  
H319 - Causes serious eye irritation

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

H400 - Very toxic to aquatic life

### **Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Keep/Store away from clothing/ combustible materials  
Wash hands and face thoroughly after handling  
Wash eyes thoroughly after handling.  
Do not eat, drink or smoke when using this product  
Take any precaution to avoid mixing with combustibles  
Wear eye/face protection  
Avoid release to the environment

### **Precautionary Statements - Response**

Specific treatment (see First aid on this SDS)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth  
In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.  
Collect spillage

### **Precautionary Statements - Storage**

Store locked up

### **Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

### **Other hazards which do not result in classification**

#### **General Hazards**

Poisons Schedule (SUSMP) 7

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

### **Mixture**

**Chemical nature** Contains anticaking agent.

Chemical name	CAS No.	Weight-%
Sodium nitrite	7632-00-0	>=99
Other component(s)	-	to 100

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, (trained personnel should) give oxygen. Give artificial respiration if victim is not breathing. Call a physician immediately.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash off immediately with plenty of water. Call a physician if symptoms occur.
<b>Ingestion</b>	Clean mouth with water. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Irritation. May cause redness and tearing of the eyes. Delayed pulmonary edema may occur.
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### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically. May cause methemoglobinemia. Symptoms may be delayed.  Treat with toluonium chloride to reverse methaemoglobinanaemia. After inhalation of decomposition products: Pulmonary oedema prophylaxis.
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## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Water spray.
<b>Unsuitable extinguishing media</b>	Carbon dioxide (CO <sub>2</sub> ). Dry chemical.

### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	Promotes the combustion (oxidizer). Can cause fire and explosion when in contact with flammable substances. Any material contaminated with the product (e.g. clothes) ignites easily and burns vigorously - increased fire hazard. Environmentally hazardous.
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### Special protective actions for fire-fighters

<b>Special protective equipment for fire-fighters</b>	Decomposes on heating emitting irritating white fumes and/or brown fumes. Brown fumes indicate the presence of toxic oxides of nitrogen. On detection of fire the compartment(s) should be opened up to provide maximum ventilation. Fire-fighters to wear self-contained breathing apparatus and suitable protective clothing if there is a risk of exposure to products of combustion/decomposition. If safe to do so, remove containers from path of fire. If safe to do so, prevent molten material from being confined in drains, pipes, etc.
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<b>Hazchem code</b>	1Z
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes and inhalation of vapors. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Use personal protective equipment as required. Wash thoroughly after handling.

**Other information** Keep combustibles (wood, paper, oil, etc) away from spilled material.

**For emergency responders** Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological Information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes, and clothing. Avoid generation of dust. Do not breathe dust. Do not eat, drink or smoke when using this product. Use personal protection equipment. Wash thoroughly after handling.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from foodstuffs and sources of heat or ignition. Protect from moisture. Store locked up. Do NOT store nor transport with ammonium salts. Keep container closed when not in use.

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

**Incompatible materials** Acids. Amines. Ammonium compounds. Combustible material. Cyanides. Reducing agents.

**Poisons Schedule (SUSMP)** 7

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Limits** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for particulates:

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be 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.

### Appropriate engineering controls

#### **Engineering controls**

Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. 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.

### Individual protection measures, such as personal protective equipment

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

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



#### **Eye/face protection**

Goggles.

#### **Skin and body protection**

Overalls. Wear suitable protective clothing. Boots.

#### **Hand protection**

Impervious gloves.

#### **Respiratory protection**

If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

#### **Environmental exposure controls**

No information available.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	Crystalline
<b>Color</b>	White to Slightly Yellow
<b>Odor</b>	Faint
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7-9 (100 g/L)	None known
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	280°C	None known

<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	Not applicable	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	Not applicable	
<b>Lower flammability or explosive limits</b>	Not applicable	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	2.17 @20°C	None known
<b>Water solubility</b>	Soluble in water	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	log Kow = -3.7	None known
<b>Autoignition temperature</b>	Not applicable	None known
<b>Decomposition temperature</b>	>320°C	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

**Other information**

**Molecular formula** NaNO<sub>2</sub>

**10. STABILITY AND REACTIVITY****Reactivity**

**Reactivity** Mixtures with ammonium compounds or cyanides may explode.

**Chemical stability**

**Stability** Stable under recommended storage conditions. Hygroscopic.

**Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** Oxidizing agent. Supports combustion of other materials and increases intensity of a fire.

**Hazardous polymerization** Hazardous polymerization does not occur.

**Conditions to avoid**

**Conditions to avoid** Heat. Moisture. Dust formation. Avoid contact with combustible substances. Do not contaminate food or feed stuffs.

**Incompatible materials**

**Incompatible materials** Acids. Amines. Ammonium compounds. Combustible material. Cyanides. Reducing agents.

**Hazardous decomposition products**

**Hazardous decomposition products** Nitrogen oxides. Disodium oxide.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

**Information on likely routes of exposure**

<b>Product Information</b>	No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:
<b>Inhalation</b>	May cause irritation. May cause a reduction in blood pressure.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Skin contact</b>	May cause irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause a lowering of blood pressure (hypotension). There is a risk of damage to the blood(methemoglobinemia) after a single uptake.
<b>Symptoms</b>	Irritation. May cause redness and tearing of the eyes. May cause methemoglobinemia.

**Numerical measures of toxicity - Product Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium nitrite	157.9 mg/kg (rat) 175 mg/kg (mouse) 186 mg/kg (rabbit)	-	= 5.5 mg/L ( Rat ) 4 h

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Not classified.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Refer to 'Chronic effects' section below.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Chronic effects:</b>	There is a risk of damage to the blood (methemoglobinemia) after a single uptake of large quantities. Under certain conditions nitrites can enhance the formation of nitrosamines in vivo. Nitrosamines are carcinogenic in animal studies.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

**Ecotoxicity** Keep out of waterways. Very toxic to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium nitrite	-	LC50: =0.19mg/L (96h, Oncorhynchus mykiss) LC50: 0.092 - 0.13mg/L (96h, Oncorhynchus mykiss) LC50: 0.4 - 0.6mg/L (96h, Oncorhynchus mykiss) LC50: 0.65 - 1mg/L (96h, Oncorhynchus mykiss) LC50: =2.3mg/L (96h, Pimephales promelas) LC50: =20mg/L (96h, Pimephales promelas)	-	-

**Persistence and degradability**

**Persistence and degradability** Biodegradation is not an applicable endpoint since the product is an inorganic substance.

**Bioaccumulative potential**

**Bioaccumulation** No information available.

Chemical name	Partition coefficient
Sodium nitrite	-3.7

**Mobility**

**Mobility in soil** No information available.

**Other adverse effects****13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**14. TRANSPORT INFORMATION****ADG**

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

**UN number** 1500  
**Proper shipping name** SODIUM NITRITE  
**Hazard class** 5.1  
**Subsidiary hazard class** 6.1  
**Packing group** III  
**Hazchem code** 1Z

**IATA**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations



for transport by air; DANGEROUS GOODS.

UN number	1500
UN proper shipping name	SODIUM NITRITE
Transport hazard class(es)	5.1
Subsidiary hazard class	6.1
Packing group	III

**IMDG**

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN number	1500
UN proper shipping name	SODIUM NITRITE
Transport hazard class(es)	5.1
Subsidiary hazard class	6.1
Packing group	III
IMDG EMS Fire	F-A
IMDG EMS Spill	S-Q
Marine pollutant	Yes

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

##### Australia

Classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG).

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

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

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

**Poisons Schedule (SUSMP)** 7

#### International Inventories

**AIIC** All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.

#### **Legend:**

**AIIC-** Australian Inventory of Industrial Chemicals

#### International Regulations

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

## 16. OTHER INFORMATION

Supplier Safety Data Sheet 02/ 2023

**Reason(s) For Issue:** 5 Yearly Revised Primary SDS

**Issuing Date:** 06-Feb-2023

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australian Industrial Chemicals Introduction Scheme (AICIS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.**

**Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.**

**End of Safety Data Sheet**