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Safety Data Sheet
Revision Date: 01.04.2024

Sodium Nitrite

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

Manufacturer Details
Dalcon Hygiene Pty Ltd
36 Victoria Street
Smithfield
NSW 2164 Australia

Telephone Number: 02 9604 1155

Poisons information centre: 13 11 26 (Australia)

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).

Oxidizing solids	Category 3
Acute toxicity - Oral	Category 3
Serious eye damage/eye irritation	Category 2
Acute aquatic toxicity	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

General advice 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.

Inhalation 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.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash off immediately with plenty of water. Call a physician if symptoms occur.

Ingestion 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

Symptoms Irritation. May cause redness and tearing of the eyes. Delayed pulmonary edema may occur.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. May cause methemoglobinemia. Symptoms may be delayed.

Treat with toluonium chloride to reverse methaemoglobinanaemia. After inhalation of decomposition products: Pulmonary oedema prophylaxis.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Water spray.

Unsuitable extinguishing media Carbon dioxide (CO_2). Dry chemical.

Specific hazards arising from the chemical

Specific hazards arising from the chemical 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.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters 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.

Hazchem code 1Z

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^3

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

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

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

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

Other information

Molecular formula NaNO2

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

Product Information 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:

Inhalation May cause irritation. May cause a reduction in blood pressure.

Eye contact Causes serious eye irritation.

Skin contact May cause irritation.

Ingestion 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.

Symptoms 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

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Refer to 'Chronic effects' section below.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Chronic effects: 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

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

Issuing Date: 01-APR-2024

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 Dalcon Hygiene 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 Dalcon Hygiene Pty Ltd at the contact details on page 1.

Dalcon Hygiene 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

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

General advice 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.

Inhalation 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.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash off immediately with plenty of water. Call a physician if symptoms occur.

Ingestion 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

Symptoms Irritation. May cause redness and tearing of the eyes. Delayed pulmonary edema may occur.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. May cause methemoglobinemia. Symptoms may be delayed.

Treat with toluonium chloride to reverse methaemoglobinanaemia. After inhalation of decomposition products: Pulmonary oedema prophylaxis.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Water spray.

Unsuitable extinguishing media Carbon dioxide (CO2). Dry chemical.

Specific hazards arising from the chemical

Specific hazards arising from the chemical 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.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters 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.

Hazchem code 1Z

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^3

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

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

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

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

Other information

Molecular formula NaNO2

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

Product Information 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:

Inhalation May cause irritation. May cause a reduction in blood pressure.

Eye contact Causes serious eye irritation.

Skin contact May cause irritation.

Ingestion 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.

Symptoms 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

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Refer to 'Chronic effects' section below.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Chronic effects: 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

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

Issuing Date: 01-APR-2024

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 Dalcon Hygiene 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 Dalcon Hygiene Pty Ltd at the contact details on page 1.

Dalcon Hygiene 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