

1. IDENTIFICATION

Product Name	Sodium nitrite, >33% Soln.
Other Names	Sodium nitrite, 40% (w/w)
Uses	General chemical; Dyestuff manufacture; Organic synthesis; Metal treatment.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Nitrous acid, sodium salt, >33% Soln.
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 6

Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories Oxidising Liquids - Category 3
 Acute Toxicity (Oral) - Category 3
 Serious Eye Damage/Irritation - Category 2A
 Acute Hazard To The Aquatic Environment - Category 1

Pictograms



Signal Word Danger

Hazard Statements

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

Precautionary Statements

Prevention	P210	Keep away from heat.	
	P221	Take any precaution to avoid mixing with combustibles/organic material.	
	P280	Wear protective gloves/eye protection/face protection.	
	P273	Avoid release to the environment.	
	P270	Do not eat, drink or smoke when using this product.	
	Response	P370 + P378	In case of fire: Use water for extinction.
		P337 + P313	If eye irritation persists: Get medical advice/attention.
		P391	Collect spillage.
		P330	Rinse mouth.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.	
Storage	P405	Store locked up.	
Disposal	P501	Dispose of contents/container in accordance with local / regional / national / international regulations.	

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications

Physical Hazards	5.1.1C	Oxidising substances that are liquids or solids: low hazard
Health Hazards	6.1C	Substances that are acutely toxic- Toxic
	6.4A	Substances that are irritating to the eye
Environmental Hazards	9.1A	Substances that are very ecotoxic in the aquatic environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Water	H ₂ O	7732-18-5	<67 %
Sodium nitrite	NaNO ₂	7632-00-0	>33 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Skin	IF ON SKIN: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. For gross contamination, drench contaminated clothing and skin with plenty of water before removing clothes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention. Apply resuscitation if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Ingestion may cause methaemoglobinaemia. Treat symptomatically. Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Do not move cargo if cargo has been exposed to heat. 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.
Flammability Conditions	OXIDISING SUBSTANCE: Will accelerate burning when involved in a fire.
Extinguishing Media	Use flooding quantities of water for extinction - Do not use dry chemicals, CO ₂ or foam. Large fire: Flood fire area with water from a protected position.
Fire and Explosion Hazard	Risk of violent reaction or explosion - May explode from heating, shock, friction or contamination. Containers may explode when heated. May ignite combustibles.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Nitrogen oxides, Sodium oxides.
Special Fire Fighting Instructions	Dam fire control water for later disposal - Runoff from fire control or dilution water may pollute waterways and may create fire or explosion hazard.
Personal Protective Equipment	Wear self-contained breathing apparatus (SCBA) in combination with normal firefighting clothing (full fire kit).
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	2W

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. Do not contaminate - Keep combustibles (wood, paper, clothing, oil, and so on) away
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from spilled material. Prevent exposure to heat. ELIMINATE all ignition sources. Avoid breathing vapours and contact with eyes, skin and clothing.

Clean Up Procedures

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a suitable container for later disposal (see SECTION 13). Move container from spill area.

Containment

Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.

Decontamination

Wash area down with excess water to remove residual material.

Environmental Precautionary Measures

Spillages and decontamination runoff should be prevented from entering drains and watercourses.

Evacuation Criteria

Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.

Personal Precautionary Measures

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8).

7. HANDLING AND STORAGE

Handling

Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Do not contaminate - Take any precaution to avoid mixing with combustibles/organic material. Avoid release to the environment; Collect spillage (see SECTION 6).

Storage

Store in a cool, dry, well-ventilated area, out of direct sunlight. Keep container tightly closed - Check regularly for leaks and spills. Keep away from heat and sources of ignition - No smoking. Keep/store away from clothing/combustible materials. Keep away from foodstuffs and incompatible materials (see SECTION 10). Store locked up.

Container

Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General

No specific exposure standards are available for this product.

Exposure Limits

No Data Available

Biological Limits

No information available.

Engineering Measures

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.

Personal Protection Equipment

- Respiratory protection: Wear respiratory protection in case of inadequate ventilation and/or to avoid breathing mist/vapours/spray. Recommended: Full-face particle respirator (e.g. type P3) as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.
- Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: safety glasses with side-shields, goggles and/or full-face shield. Use equipment for eye protection tested and approved under appropriate government standards.
- Hand protection: Wear protective gloves. Recommended: Elbow-length neoprene or rubber impervious gloves. Always check with the glove manufacturer or your PPE supplier regarding the correct type of glove to use.
- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Long sleeved shirt and trousers, chemical-resistant apron, coveralls, safety shoes. The type of protective equipment must be selected according to the concentration and amount of the hazardous substance(s) at the specific workplace.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Take off contaminated clothing and wash before storage or reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear liquid
Odour	Mild
Colour	Colourless to slightly yellow
pH	No Data Available
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	No Data Available
Specific Gravity	1.29 - 1.31
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	OXIDISING SUBSTANCE: Will accelerate burning when involved in a fire. May explode from heating, shock, friction or contamination. May ignite combustibles.
Reactions That Release Gases or Vapours	Fire may produce irritating and/or toxic gases, including Nitrogen oxides, Sodium oxides.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	The solution in water is a weak base.
Chemical Stability	The product is stable under normal conditions of use.

Conditions to Avoid	Keep away from heat and sources of ignition. Do not contaminate - Take any precaution to avoid mixing with combustibles/organic material.
Materials to Avoid	Incompatible/reactive with acids, combustible/organic materials, finely powdered metals, reducing agents, cyanides, activated carbon, ammonium salts and amines.
Hazardous Decomposition Products	Thermal decomposition may produce irritating and/or toxic gases, including Nitrogen oxides, Sodium oxides.
Hazardous Polymerisation	Will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: Toxic if swallowed. The primary toxic effect in humans is methaemoglobinaemia; Symptoms may include cyanosis, progressive CNS effects (nausea, vertigo, lethargy) and dyspnoea, abdominal pain, rapid fall in blood pressure, coma and convulsions; risk of mortality at high dose - Lowest lethal (oral) dose in humans: 27 - 255 mg/kg bw (as nitrite). - Skin corrosion/irritation: Not considered to be a skin irritant - May cause slight skin irritation. - Eye damage/irritation: Causes serious eye irritation. - Respiratory/skin sensitisation: Sensitisation potential is not expected. - Germ cell mutagenicity: May form mutagenic N-nitroso compounds under certain conditions (formation of nitrosamines or nitrosamides by reaction with secondary amines or amides). - Carcinogenicity: May form carcinogenic N-nitroso compounds under certain conditions (if endogenous nitrosation occurs resulting in the formation of certain carcinogenic nitrosamines). "Nitrate or nitrite (ingested) under conditions that result in endogenous nitrosation" is classified by the IARC Monographs, Group 2A - Probably carcinogenic to humans. - Reproductive toxicity: The chemical is considered to have low reproductive toxicity. - STOT (single exposure): Respiratory irritation may occur at high concentrations. - STOT (repeated exposure): The primary toxic effect following repeated (oral) exposure is methaemoglobinaemia. - Aspiration toxicity: No information available.
Acute Ingestion	<p>Acute toxicity (Oral):</p> <p>COMPONENT: Sodium nitrite (CAS No. 7632-00-0):</p> <ul style="list-style-type: none"> - LD50, Rats: 85 mg/kg bw. - LD50, Mice: 175 - 216 mg/kg bw. - LD50, Rabbits: 186 mg/kg bw.
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	<p>Aquatic toxicity:</p> <p>COMPONENT: Sodium nitrite (CAS No. 7632-00-0):</p> <ul style="list-style-type: none"> - Very toxic to aquatic life.
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Avoid release to the environment - Prevent entry into soils, drains and waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents container via a licensed disposal company and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
EPG	31 Oxidizing Substances
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
ERG	142 Oxidizers - Toxic (Liquid)
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-Q
Marine Pollutant	Yes

Air Transport

IATA DGR

Proper Shipping Name	OXIDIZING LIQUID, TOXIC, N.O.S. (Sodium nitrite, >33% Soln.)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	6.1 Toxic and Infectious Substances - Toxic Substances
UN Number	3099
Hazchem	2W
Pack Group	III
Special Provision	No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	SODIUM NITRITE is listed in Schedule 6 of the SUSMP in preparations containing 40% or less of Sodium nitrite.
Poisons Schedule (Aust)	Schedule 6

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002634
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National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined

Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	SONITL1802, SONITL1803, SONITL1808, SONITL1810, SONITL2000, SONITL9000, SONITL9001, SONITL9840, SONITL9842
Revision	4
Revision Date	02 Jan 2015
Key/Legend	<p>< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ Kilograms per Cubic Metre lb Pound LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Health and Safety Commission OECD Organisation for Economic Co-operation and Development</p>

Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight