



SAFETY DATA SHEET
SODIUM NITRITE >33-40% SOLUTION
REVISION 6, DATE 05 MAY 21

1. IDENTIFICATION

Product Name	Sodium Nitrite >33-40% Solution
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, aqueous solution
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox 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)

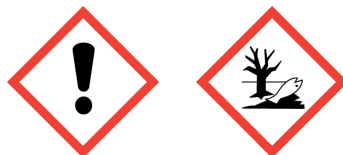
Schedule 6



Globally Harmonised System

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

Hazard Categories Acute Toxicity (Oral) - Category 4
 Serious Eye Damage/Irritation - Category 2A
 Acute Hazard To The Aquatic Environment - Category 1

Pictograms

Signal Word Warning

Hazard Statements		H302	Harmful if swallowed.
		H319	Causes serious eye irritation.
		H400	Very toxic to aquatic life.
Precautionary Statements	Prevention	P273	Avoid release to the environment.
		P270	Do not eat, drink or smoke when using this product.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
	Response	P337 + P313	If eye irritation persists: Get medical advice.
		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.
	Disposal	P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
		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 NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS*Ingredients*

Chemical Entity	Formula	CAS Number	Proportion
Sodium nitrite	NaNO ₂	7632-00-0	>33 - 40 %
Water	H ₂ O	7732-18-5	Balance %

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. Urgent hospital treatment is likely to be needed. 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, rinse 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 - Do not use direct mouth-to-mouth method if victim ingested or inhaled the substance; use alternative respiratory method or proper respiratory device - Administer oxygen if breathing is difficult.
Advice to Doctor	Ingestion may cause methaemoglobinaemia. Symptoms observed, with increasing levels of methHb, include cyanosis, progressive central nervous system effects (nausea, vertigo and lethargy) and dyspnoea, abdominal pain, rapid fall in blood pressure, coma and convulsions, and risk of mortality. Treat as for exposure to nitrites. Keep victim calm and warm - Obtain immediate medical care. 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. Cool containers with flooding quantities of water until well after fire is out. Dam fire control water for later disposal. ALWAYS stay away from tank ends.
Flammability Conditions	Non-combustible: Material itself does not burn; However, may intensify fire (Sodium nitrite is a strong oxidiser).
Extinguishing Media	If material is involved in a fire, use extinguishing agent suitable for type of surrounding fire. Use flooding quantities of water - Do not use dry chemicals, Carbon dioxide (CO2) or foam.
Fire and Explosion Hazard	Risk of explosion if heated under confinement.
Hazardous Products of Combustion	Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, Sodium oxides.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Personal Protective Equipment	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for this material.
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	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. Do not contaminate - Keep combustibles away from spilled material. Avoid exposure to heat and ELIMINATE all ignition sources. Do not touch or walk through spilled
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	material. Clean up spills immediately and dispose of waste safely. 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. Use clean, non-sparking tools to transfer material to a suitable clean, dry container for disposal (see SECTION 13).
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Cover with plastic sheet to prevent spreading.
Decontamination	Clean surfaces thoroughly with water to remove residual contamination.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. Notify authorities if liquid enters sewers or public waters.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground. Large spill: Immediately contact Police or Fire Brigade; Consider initial downwind evacuation of areas within at least 100 m.
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, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/spray and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). Do not contaminate. Keep away from heat and other ignition sources - No smoking. Avoid release to the environment - Collect spillage (see SECTION 6).
Storage	Store in a cool, dry and well-ventilated area, out of direct sunlight. Keep container closed when not in use - Check regularly for leaks. Keep away from heat and other ignition sources - No smoking. Do not contaminate. Keep away from combustibles and incompatible materials (see SECTION 10). Store locked up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Contains no substances with occupational exposure limit values.
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	<ul style="list-style-type: none"> - Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Chemical safety goggles. - Hand protection: Wear protective gloves. Recommended: Wear chemically resistant protective gloves, e.g. nitrile or rubber. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Wear suitable protective clothing, apron or lab coat; Chemically resistant materials and fabrics. 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 hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. 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 explosion if heated under confinement.
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	Non-combustible: Material itself does not burn; However, may intensify fire (Sodium nitrite is a strong oxidiser).
Reactions That Release Gases or Vapours	Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, Sodium oxides.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Hazardous reactions will not occur under normal conditions.
Chemical Stability	Stable under recommended handling and storage conditions.
Conditions to Avoid	Do not contaminate. Avoid exposure to heat and other ignition sources. Do not allow evaporation to dryness.
Materials to Avoid	Incompatible/reactive with combustibles, acids, powdered metals, ammonia, cyanides, amines, activated carbon.
Hazardous Decomposition Products	Fire or heat will produce irritating, toxic and/or corrosive gases, including Nitrogen oxides, Sodium oxides.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none"> - Acute toxicity: Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause a lowering of blood pressure (hypotension). - Skin corrosion/irritation: Not considered to be a skin irritant - May cause slight skin irritation. - Eye damage/irritation: Causes serious eye irritation. May cause redness and tearing of the eyes. - 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 as "Probably carcinogenic to humans" (Group 2A). - 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. May cause anaemia. - Aspiration toxicity: No information available.
Acute	
Ingestion	Acute toxicity (Oral): COMPONENT: Sodium nitrite (CAS No. 7632-00-0): <ul style="list-style-type: none"> - LD50, Rat (male): 180 mg/kg [ECHA]. - LD50, Rats: 85 mg/kg bw. [NICNAS]. - LD50, Mice: 175 - 216 mg/kg bw. [NICNAS]. - LD50, Rabbits: 186 mg/kg bw. [NICNAS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information available.
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life - Avoid release to the environment.
Bioaccumulation Potential	Not expected to bioaccumulate.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	No information available.

14. TRANSPORT INFORMATION**Land Transport (Australia)**

ADG Code

Proper Shipping Name	Sodium Nitrite >33-40% Solution
Class	No Data Available
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	AU01
Comments	Not regulated as DG when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Sodium nitrite)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3082
Hazchem	•3Z
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Sodium nitrite)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
EPG	47 Low To Moderate Hazard Substances
UN Number	3082
Hazchem	•3Z
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Sodium nitrite)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
ERG	171 Substances (Low to Moderate Hazard)
UN Number	3082

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Hazchem	•3Z
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Sodium nitrite)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3082
Hazchem	•3Z
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-F
Marine Pollutant	Yes

Air Transport

IATA DGR

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Sodium nitrite)
Class	9 Miscellaneous Dangerous Goods and Articles
Subsidiary Risk(s)	No Data Available
UN Number	3082
Hazchem	•3Z
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	NOT 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	HSR002503 - Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020
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National/Regional Inventories

Australia (AIC)	Listed
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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	SONITL1803, SONITL1808, SONITL1810, SONITL1811, SONITL1812, SONITL2000, SONITL3300, SONITL3900, SONITL9000, SONITL9001, SONITL9840, SONITL9842
Revision	6
Revision Date	05 May 2021
Key/Legend	<p>< Less Than</p> <p>> Greater Than</p> <p>AICS Australian Inventory of Chemical Substances</p> <p>atm Atmosphere</p> <p>CAS Chemical Abstracts Service (Registry Number)</p> <p>cm² Square Centimetres</p> <p>CO₂ Carbon Dioxide</p> <p>COD Chemical Oxygen Demand</p> <p>deg C (°C) Degrees Celcius</p> <p>EPA (New Zealand) Environmental Protection Authority of New Zealand</p> <p>deg F (°F) Degrees Farenheit</p> <p>g Grams</p> <p>g/cm³ Grams per Cubic Centimetre</p> <p>g/l Grams per Litre</p> <p>HSNO Hazardous Substance and New Organism</p> <p>IDLH Immediately Dangerous to Life and Health</p> <p>immiscible Liquids are insoluable in each other.</p> <p>inHg Inch of Mercury</p> <p>inH₂O Inch of Water</p> <p>K Kelvin</p> <p>kg Kilogram</p> <p>kg/m³ Kilograms per Cubic Metre</p> <p>lb Pound</p> <p>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.</p>

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

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