

1. IDENTIFICATION

Product Name	Nitrate of soda, 50% solution
Other Names	No Data Available
Uses	Various applications.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Sodium nitrate, 50% solution
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) Not Scheduled

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
Serious Eye Damage/Irritation - Category 2A
Acute Toxicity (Oral) - Category 5

Pictograms



Signal Word Warning

Hazard Statements **H272** May intensify fire; oxidizer.
H319 Causes serious eye irritation.
H303 May be harmful if swallowed.

Precautionary Statements

Prevention	P210	Keep away from heat.
	P221	Take any precaution to avoid mixing with combustibles.
	P280	Wear protective gloves/eye protection/face protection.
Response	P370 + P378	In case of fire: Use water for extinction.
	P337 + P313	If eye irritation persists: Get medical advice/attention.
	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	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	6.1E	Substances that are acutely toxic –May be harmful, Aspiration hazard
		6.4A	Substances that are irritating to the eye

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium nitrate	Unspecified	7631-99-4	50 %
Water	H2O	7732-18-5	50 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	If swallowed: Call a Poison Centre or doctor/physician if you feel unwell. Do NOT induce vomiting.
Eye	Eye contact: 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	Skin contact: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. 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. Apply resuscitation if victim is not breathing. Administer oxygen if breathing is difficult. Call a Poison Centre or doctor/physician if experiencing respiratory symptoms, or if you feel unwell.
Advice to Doctor	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 water spray until well after fire is out – If impossible, withdraw from area and let fire burn.
Flammability Conditions	Non-flammable. OXIDISING SUBSTANCE - Will accelerate burning when involved in a fire.
Extinguishing Media	In case of fire: Use fine water spray for extinction. USE FLOODING QUANTITIES OF WATER. Do not use dry chemicals, Carbon dioxide or foam.
Fire and Explosion Hazard	Risk of violent reaction or explosion. May explode from heating, shock, friction or contamination. May ignite combustibles (wood, paper, clothing, and so on). Containers may explode when heated. Runoff may create fire or explosion hazard.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases.
Special Fire Fighting Instructions	Contain spill and run-off. Dam fire control water for later disposal.
Personal Protective Equipment	Wear self contained breathing apparatus and chemical splash suit. Structural firefighter's uniform will provide limited protection.
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	2Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. Do NOT contaminate. Keep combustibles (wood, paper, clothing, oil, and so on) away from spilled material. Prevent exposure to heat. Avoid breathing vapours. Avoid 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 suitable containers for disposal.
Containment	Stop leak if safe to do so. Contain spillage - Prevent entry into waterways, drains or confined areas.
Decontamination	No information available.
Environmental Precautionary Measures	Prevent entry into waterways, drains or confined areas.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing/equipment (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Eyewash facilities and safety showers should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practices. Avoid breathing mist/vapours/aerosols. Avoid contact with eyes, skin and clothing. Wear protective gloves/eye protection/face protection. Take any precaution to avoid mixing with combustibles. Avoid heat, sparks, open flames and other ignition sources.
Storage	Store in a cool, dry, well ventilated area, removed from incompatible substances (acids, metallic salts, amines, organics and reducing agents), heat/ignition sources and foodstuffs. Keep/store away from combustible materials. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standards have been established 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: Not required under normal conditions of use. If inhalation risk exists, wear organic vapour/particulate respirator or air-supplied mask meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Splash-proof goggles (chemical goggles). Hand protection: Wear impervious gloves. Recommended: PVC or rubber gloves. Skin/body protection: When using large quantities or where heavy contamination is likely, wear coveralls.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Odourless or slight odour
Colour	Colourless
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	No Data Available
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 Data Available
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
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-flammable. OXIDISING SUBSTANCE - Will accelerate burning when involved in a fire. Risk of violent reaction or explosion. May explode from heating, shock, friction or contamination. May ignite combustibles (wood, paper, clothing, and so on). Containers may explode when heated. Runoff may create fire or explosion hazard.
Reactions That Release Gases or Vapours	Fire/thermal decomposition may produce irritating and/or toxic gases.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	May intensify fire; oxidiser.
Chemical Stability	Stable under recommended conditions of storage and handling.
Conditions to Avoid	Keep away from heat/ignition sources.
Materials to Avoid	Incompatible/reactive with acids, metallic salts, amines, organics and reducing agents. Take any precaution to avoid mixing with combustibles.
Hazardous Decomposition Products	Fire/thermal decomposition may produce irritating and/or toxic gases.
Hazardous Polymerisation	Polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Acute toxicity: May be harmful if swallowed. Ingestion of large quantities may result in nausea, vomiting, abdominal pain and diarrhoea.</p> <p>Skin corrosion/irritation: Contact may result in irritation, redness, rash and dermatitis.</p> <p>Eye damage/irritation: Causes serious eye irritation. Contact may result in irritation, lacrimation, pain and redness.</p> <p>Respiratory/skin sensitisation: Not classified as causing skin or respiratory sensitisation.</p> <p>Germ cell mutagenicity: Not classified as a mutagen.</p> <p>Carcinogenicity: Not classified as a carcinogen.</p> <p>Reproductive toxicity: Not classified as a reproductive toxin.</p> <p>STOT - single exposure: Over exposure may result in irritation of the nose and throat, coughing, weakness, loss of appetite, nausea, vomiting and headache. High level exposure may result in dizziness, drowsiness, breathing difficulties and methaemoglobinaemia with cyanosis (i.e. blue/grey skin colour).</p>
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STOT - repeated exposure: Not classified as causing organ damage from repeated exposure.
Aspiration toxicity: Not classified as an aspiration hazard.

Acute

Ingestion

COMPONENT: Sodium nitrate (CAS No. 7631-99-4):
Acute toxicity (Oral): LD50, Rat: 1,267 mg/kg

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information available.
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Avoid release to the environment - Prevent entry into drains and waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations. Dispose of material through a licensed waste contractor.
Special Precautions for Land Fill	No information available.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	OXIDIZING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
EPG	31 Oxidizing Substances
UN Number	3139
Hazchem	2Y
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR

Proper Shipping Name	OXIDISING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
EPG	31 Oxidizing Substances
UN Number	3139
Hazchem	2Y
Pack Group	III

Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name OXIDIZING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class 5.1 Oxidising Substances
Subsidiary Risk(s) No Data Available
EPG 31 Oxidizing Substances
UN Number 3139
Hazchem 2Y
Pack Group III
Special Provision No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name OXIDIZING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class 5.1 Oxidising Substances
Subsidiary Risk(s) No Data Available
ERG 140 Oxidizers
UN Number 3139
Hazchem 2Y
Pack Group III
Special Provision No Data Available

Sea Transport

IMDG Code

Proper Shipping Name OXIDIZING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class 5.1 Oxidising Substances
Subsidiary Risk(s) No Data Available
UN Number 3139
Hazchem 2Y
Pack Group III
Special Provision No Data Available
EMS F-A, S-Q
Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name OXIDIZING LIQUID, N.O.S. (Sodium Nitrate Solution)
Class 5.1 Oxidising Substances
Subsidiary Risk(s) No Data Available
UN Number 3139
Hazchem 2Y
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)

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR002631

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 NISODL1000, NISODL1001, NISODL1010, NISODL1020
Revision 3
Revision Date 07 Feb 2017
Key/Legend
< 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 Heath 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