



SAFETY DATA SHEET
SODIUM BISULPHITE SOLUTION (>=25-50%)
REVISION 4, DATE 19 DEC 20

1. IDENTIFICATION

Product Name	Sodium Bisulphite Solution (>=25-50%)
Other Names	No Data Available
Uses	Oxygen scavenging and dechlorination; used in making paper and leather; food preservative; dye and chemical production.
Chemical Family	No Data Available
Chemical Formula	NaHSO ₃
Chemical Name	Sodium bisulphite solution (>=25-50%)
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)

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		Corrosive to Metals - Category 1 Acute Toxicity (Oral) - Category 4 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Irritation - Category 2A Specific Target Organ Toxicity (Single Exposure) - Category 3	
Pictograms		 	
Signal Word		Warning	
Hazard Statements		H290	May be corrosive to metals.
		H302	Harmful if swallowed.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.
		AUH031	Contact with acids liberates toxic gas
Precautionary Statements	Prevention	P280	Wear protective gloves/eye protection/face protection.
		P261	Avoid breathing mist/vapours/spray.
		P270	Do not eat, drink or smoke when using this product.
	Response	P271	Use only outdoors or in a well-ventilated area.
		P390	Absorb spillage to prevent material-damage.
		P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		P312	Call a POISON CENTER or doctor if you feel unwell.
		P330	Rinse mouth.
		P332 + P313	If skin irritation occurs: Get medical advice.
		P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P337 + P313	If eye irritation persists: Get medical advice.
		P362 + P364	Take off contaminated clothing and wash it before reuse.
	Storage	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
		P406	Store in corrosive resistant container with a resistant inner liner.
		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)

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 bisulphite	NaHSO ₃	7631-90-5	>=25 - 50 %
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 with water, then give a glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. 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 and isolate 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. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. *Most important symptoms and effects, both acute and delayed: The substance is irritating to the skin, eyes, respiratory tract and gastrointestinal tract.
Medical Conditions Aggravated by Exposure	Exposure could cause asthma-like reactions or urticaria in sensitive persons.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.
Flammability Conditions	Non-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO ₂), foam or water spray for extinction. Do not use water jet as an extinguisher as this will spread the fire.
Fire and Explosion Hazard	Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Fire/decomposition may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur.

Hazardous Products of Combustion

Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and cause pollution.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
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	2X

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing.
Clean Up Procedures	Absorb with earth, sand or other non-combustible material and transfer to a suitable, properly labelled container for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Wash away remainder with plenty of water.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses. If contamination of sewers or waterways has occurred advise local emergency services.
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 250 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 - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mist/vapours/aerosols and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8). Corrosive to metals: Absorb spillage to prevent material damage (see SECTION 6).
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed - check regularly for leaks. Keep away from heat and sources of ignition - No smoking. Keep away from food/feedstuffs and incompatible materials (see SECTION 10). Store locked up.
Container	Keep only in the original container or suitable packaging materials, i.e. polyethylene, polypropylene, and/or poly-lined containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	COMPONENT: Sodium bisulfite (CAS No. 7631-90-5): - Safe Work Australia Exposure Standard: TWA = 5 mg/m3. - New Zealand Workplace Exposure Standard: TWA = 5 mg/m3; Dermal sensitiser (dsen); Respiratory sensitiser (rsen). - NIOSH REL: TWA = 5 mg/m3.
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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: Wear respiratory protection in case of inadequate ventilation or if an inhalation risk exists. Recommended: Acid gas/particulate (E/P) filter respirator or supplied-air respirator (refer to AS/NZS 1715 & 1716).- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical safety goggles.- Hand protection: Wear protective gloves. Recommended: Impervious gloves, e.g. Rubber or Nitrile.- Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Overalls, safety shoes (made from material which cannot be permeated or degraded by this substance).
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. 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	Pungent, sulfurous
Colour	Pale yellow
pH	3.5 - 5.0 - Incompatible with acids! Reacts with acids!
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	Miscible with water
Specific Gravity	1.23 - 1.35
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	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-combustible; substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur.
Release of Invisible Flammable Vapours and Gases	Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	May be corrosive to metals. Under heated conditions or in contact with acids, will produce toxic sulfur dioxide gas.
Chemical Stability	Stable under recommended handling and storage conditions.
Conditions to Avoid	Avoid extremely high or low temperatures.
Materials to Avoid	Incompatible/reactive with acids, strong oxidising agents, metals.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including oxides of Sulfur. *Contact with metals may evolve flammable hydrogen gas.
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Information on toxicological effects:</p> <ul style="list-style-type: none"> - Acute toxicity: Harmful if swallowed. - Skin corrosion/irritation: Causes skin irritation. - Eye damage/irritation: Causes serious eye irritation. - Respiratory/skin sensitisation: Not likely to be a skin or respiratory sensitizer in humans generally, except in sulfite sensitive individuals. This sensitivity can cause a wide range of reactions ranging from mild to severe dermatological, pulmonary, gastrointestinal or cardiovascular symptoms. Those who have asthma are most at risk to sulfite sensitivity and other forms of sulfite reactions. - Germ cell mutagenicity: Not considered to be genotoxic. - Carcinogenicity: Not considered to be carcinogenic. - Reproductive toxicity: Not considered to cause reproductive or developmental toxicity. - STOT (single exposure): May cause respiratory irritation. - STOT (repeated exposure): Not considered to cause serious damage to health by repeated exposure. - Aspiration toxicity: No information available. <p>Information on likely routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: May cause gastrointestinal irritation, abdominal pain, nausea, vomiting. Contact with acids liberates toxic gas and therefore may cause effects in individuals with high acid content in the stomach. - Eye contact: Causes serious eye irritation, with redness and swelling of the conjunctiva. - Skin contact: Causes skin irritation. - Inhalation: May irritate the nose and throat causing coughing and wheezing. <p>Chronic effects: Repeated exposure may cause bronchitis to develop, with coughing, phlegm and/or shortness of breath.</p>
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Acute

Ingestion	Acute toxicity (Oral): COMPONENT: Sodium bisulfite (CAS No. 7631-90-5): - LD50, Rat: 2,000 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	The product is not classified as environmentally hazardous; however, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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. Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. Incinerate material under controlled conditions in an approved incinerator.
Special Precautions for Land Fill	This material and its container must be disposed of in a safe manner. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

General Information	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas!
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Land Transport (Australia)

ADG Code

Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Comments	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas.

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
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Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Comments	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas.

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Comments	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas.

Land Transport (United States of America)

US DOT

Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	154 Substances - Toxic and/or Corrosive (Non-Combustible)
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Comments	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas!

Sea Transport

IMDG Code

Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	No
Comments	Stow separated from acids - Reacts with acids, evolving sulphur dioxide, a toxic gas.

Air Transport

IATA DGR

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Proper Shipping Name	BISULPHITES, AQUEOUS SOLUTION, N.O.S. (Contains Sodium bisulphite)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	2693
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
Comments	Incompatible with acids - Reacts with acids, evolving sulphur dioxide, a toxic gas.

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	No Data Available
Poisons Schedule (Aust)	Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002491 - Additives, Process Chemicals and Raw Materials (Corrosive) Group Standard 2020
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National/Regional Inventories

Australia (AIIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	231-548-0
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
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	SODBIS1000, SODBIS1001, SODBIS1002, SODBIS1003, SODBIS1005, SODBIS1006, SODBIS1007, SODBIS1100, SODBIS1110, SODBIS1801, SODBIS1802, SODBIS1803, SODBIS1804, SODBIS1805, SODBIS1806, SODBIS1807, SODBIS1808, SODBIS1809, SODBIS1810, SODBIS1811, SODBIS1812, SODBIS1813, SODBIS1814, SODBIS1815, SODBIS1816, SODBIS1817, SODBIS2000, SODBIS2500, SODBIS2600, SODBIS2700, SODBIS2800, SODBIS2900, SODBIS3000, SODBIS3500, SODBIS3501, SODBIS3900, SODBIS3901, SODBIS3902, SODBIS3903, SODBIS3904, SODBIS3905, SODBIS3906, SODBIS3907, SODBIS3910, SODBIS3911, SODBIS3912, SODBIS3913, SODBIS3915, SODBIS3940, SODBIS3945, SODBIS3950, SODBIS3951, SODBIS3952, SODBIS3955, SODBIS3956, SODBIS4000, SODBIS4500, SODBIS5000, SODBIS5500, SODBIS5501, SODBIS7700, SODBIS7701, SODBIS7702, SODBIS7703, SODBIS7704, SODBIS7705, SODBIS7710, SODBIS8000, SODBIS8200, SODBIS8800, SODBIS8801, SODBIS8810, SODBIS8825, SODBIS8826
Revision	4
Revision Date	19 Dec 2020
Reason for Issue	SDS updated
Key/Legend	<p>< Less Than > Greater Than</p> <p>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 Fahrenheit 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 insoluble 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</p>

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