



SAFETY DATA SHEET SODIUM BISULPHATE REVISION 5, DATE 19 DEC 2022

1. IDENTIFICATION

Product Name	Sodium Bisulphate
Other Names	Sodium bisulfate; Sodium hydrogensulfate
Uses	Chemical basic material; Manufacture of substances and industrial uses; Use in cleaning agents; Use as pH-regulator.
Chemical Family	No Data Available
Chemical Formula	NaHSO ₄
Chemical Name	Sulfuric acid, monosodium salt
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

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Schedule 5

Globally Harmonised System

Hazard Classification	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories	Serious Eye Damage/Irritation - Category 1



Pictograms



Signal Word

Danger

Hazard Statements

H318

Causes serious eye damage.

Precautionary Statements

Prevention

P280

Wear eye protection/face protection.

Response

P305 + P351 + P338 +
P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.

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 bisulphate	NaHSO ₄	7681-38-1	≤100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed

IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. 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. Immediately call a Poison Centre or doctor/physician for advice; Subsequently consult an ophthalmologist.

Skin

IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately flush skin and hair with running water for at least 15 minutes. Thoroughly wash skin with soap and water. 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. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Advice to Doctor

Treat symptomatically. Show this safety data sheet (SDS) to the doctor in attendance.

*Most important symptoms and effects, both acute and delayed: Causes serious eye damage. Inhalation of dust may cause irritation of the respiratory system.



Medical Conditions Aggravated by Exposure No information available.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal. Cool containers with water spray until well after fire is out.
Flammability Conditions	Non-flammable.
Extinguishing Media	If material is involved in a fire, use dry chemical, Carbon dioxide (CO ₂), alcohol-resistant foam or water spray for extinction - Do not use high volume water jet.
Fire and Explosion Hazard	The pressure in sealed containers can increase under the influence of heat. Vapours may form explosive mixture with air. Vapours are heavier than air and may spread along floors.
Hazardous Products of Combustion	Fire or heat may produce irritating and/or toxic gases, including Sulfur oxides (SO _x).
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only 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	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition source. Do not touch or walk through spilled material. Avoid generating dust. Avoid breathing dusts or mists and contact with eyes, skin and clothing.
Clean Up Procedures	Take up mechanically (sweep up and shovel), placing in appropriate containers for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent dust cloud. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	After cleaning, flush away traces with water.
Environmental Precautionary Measures	Prevent entry into drains and waterways. Local authorities should be advised if significant spillages cannot be contained.
Evacuation Criteria	Spill or leak area should be isolated immediately. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Personal Precautionary Measures	Use personal protective equipment as required (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 generating dust. Avoid formation of aerosol. Avoid breathing dusts or mists and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8).
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep container tightly closed to avoid moisture absorption and contamination. Keep away from heat and sources of ignition - No smoking. Keep away from food, drink and feedstuffs. Keep away from incompatible materials (see SECTION 10).



Container Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: - Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m ³ (measured as inhalable dust). - New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m ³ ; TWA = 3 mg/m ³ (respirable dust).
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: In case of inadequate ventilation, wear respiratory protection. Recommended: ABEK/P2 filter respirator with a full face mask or self-contained breathing apparatus (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles. - Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves, e.g. PVC. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Chemical-resistant overalls.
Special Hazards Precautions	In contact with water the product forms sulphuric acid that can cause burns.
Work Hygienic Practices	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before re-use. Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystals, granular
Odour	Odourless
Colour	White, light yellow
pH	1.3
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	179 - 315 °C
Freezing Point	No Data Available
Solubility	1,050 - ca. 1,080 g/L in water 25°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	1,200 - 1,500 g/L
Corrosion Rate	No Data Available
Decomposition Temperature	460 °C
Density	2.44 g/cm ³
Specific Heat	No Data Available
Molecular Weight	120.06 g/mol



Net Propellant Weight	No Data Available
Octanol Water Coefficient	-2.2 [KOWWIN]
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	Hygroscopic.
Potential for Dust Explosion	No information available.
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.
Reactions That Release Gases or Vapours	Fire or heat may produce irritating and/or toxic gases, including Sulfur oxides (SO _x).
Release of Invisible Flammable Vapours and Gases	Vapours may form explosive mixture with air. In aqueous solution, contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	In aqueous solution, contact with metals may evolve flammable hydrogen gas.
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Avoid generating dust. Protect from moisture/humidity. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong bases, oxidising agents, water.
Hazardous Decomposition Products	Fire or heat may produce irritating and/or toxic gases, including Sulfur oxides (SO _x).
Hazardous Polymerisation	Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	Information on toxicological effects: - Acute toxicity: Based on available data, the classification criteria are not met. - Skin corrosion/irritation: Based on available data, the classification criteria are not met. Not an irritant (Rabbit) [OECD 404]. - Eye damage/irritation: Causes serious eye damage. Irritant (Rabbit) [OECD 405]. - Respiratory/skin sensitisation: Based on available data, the classification criteria are not met. Not sensitising (Guinea pig) [read-across: sodium sulfate; OECD 406]. - Germ cell mutagenicity: Based on available data, the classification criteria are not met. - Carcinogenicity: Based on available data, the classification criteria are not met. - Reproductive toxicity: Based on available data, the classification criteria are not met. - STOT (single exposure): Based on available data, the classification criteria are not met. - STOT (repeated exposure): Based on available data, the classification criteria are not met.
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- Aspiration toxicity: Based on available data, the classification criteria are not met.

Information on likely routes of exposure:

- Ingestion: Ingestion may cause irritation to mucous membranes. Ingestion may provoke abdominal pain, burning sensation.
 - Eye contact: Causes serious eye damage. Eye contact may provoke redness, pain.
 - Skin contact: May be irritating. Skin contact may provoke redness, pain, blisters.
 - Inhalation: May cause irritation of respiratory tract. Inhalation may provoke shortness of breath, cough, dry/sore throat.
- Chronic effects: No information available.

Acute

Ingestion	Acute toxicity (Oral): - LD50, Rat: 2,140 mg/kg bw. [read-across: sulphuric acid]. - LD50, Rat: >2,000 mg/kg [read-across: sodium sulphate; OECD 423].
Inhalation	Acute toxicity (Inhalation): - LC50, Rats (male/female): >2.4 mg/l (4 h) dust-aerosol [read-across: sodium sulfate].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Pimephales promelas): 7,960 mg/l (96 h) [read-across; sodium sulfate]. - EC50, Crustacea (Daphnia magna): 1,766 mg/l (48 h) [read-across; sodium sulfate]. - EC50, Algae (Nitzschia linearis): 1,900 mg/l (72 h) [read-across; sodium sulfate].
Persistence/Degradability	The methods for determining the biological degradability are not applicable to inorganic substances.
Mobility	Highly mobile in soils.
Environmental Fate	Do not allow to enter into ground-water, surface water or drains.
Bioaccumulation Potential	Bioaccumulation is unlikely.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container at an authorised disposal facility and in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Handle contaminated packages in the same way as the substance itself.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	Sodium Bisulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available



Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Sodium Bisulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Sodium Bisulphate
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

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 HYDROGEN SULFATE is listed in Schedule 5 of the SUSMP, except in preparations containing 10% or less of sodium hydrogen sulfate.
Poisons Schedule (Aust)	Schedule 5

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed



China (IECSC)	Listed
Europe (EINECS)	231-665-7
Europe (REACH)	01-2119552465-36-
Japan (ENCS/METI)	1-501
Korea (KECI)	KE-31481
Malaysia (EHS Register)	Listed
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes	SOBISU0007, SOBISU0315, SOBISU1000, SOBISU1001, SOBISU1002, SOBISU1003, SOBISU1004, SOBISU1005, SOBISU1006, SOBISU1008, SOBISU1600, SOBISU1700, SOBISU1710, SOBISU1800, SOBISU1801, SOBISU1802, SOBISU1803, SOBISU1804, SOBISU1810, SOBISU1900, SOBISU1901, SOBISU2000, SOBISU2025, SOBISU2100, SOBISU2515, SOBISU2900, SOBISU3000, SOBISU4000, SOBISU5000, SOBISU5001, SOBISU5025, SOBISU5026, SOBISU5027, SOBISU9800
Revision	5
Revision Date	19 Dec 2022
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 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

