1. IDENTIFICATION

Product Name	**Sodium bisulphate**
Other Names	Sodium bisulfate; Sodium hydrogen sulfate
Uses	Chemical raw material for industrial purposes Industrial processing with a.o. use in detergents or as a pH regulator
Chemical Family	No Data Available
Chemical Formula	No Data Available
Chemical Name	Sodium bisulphate
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) 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**	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P310	Immediately call a POISON CENTER or doctor/physician.

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)	

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Health Hazards	**8.3A**	Substances that are corrosive to ocular tissue

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium bisulphate	No Data Available	7681-38-1	93 - 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	If swallowed, Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.
Eye	Rinse immediately and thoroughly with plenty of water for at least 15 minutes and consult a physician. Call a physician immediately.
Skin	Take off all contaminated clothing immediately. Wash off skin and hair with soap and water. If skin irritation persists, call a physician.
Inhaled	Move to fresh air. Call a physician immediately.
Advice to Doctor	Treat symptomatically. Show this safety data sheet to the doctor in attendance.
Medical Conditions Aggravated by Exposure	No information available.

5. FIRE FIGHTING MEASURES

General Measures	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Flammability Conditions	Non flammable.
Extinguishing Media	Suitable: Use dry chemical, CO2, water spray or alcohol resistant foam. Unsuitable: 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	Burning produces noxious and toxic fumes: SOx, NaOx.
Special Fire Fighting Instructions	In the event of fire, cool tanks with water spray.
Personal Protective Equipment	Wear self-contained breathing apparatus.
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. Do not breathe vapours or spray mist. Avoid contact with skin and eyes.
Clean Up Procedures	Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations.
Containment	Prevent further leakage or spillage if safe to do so.
Decontamination	No information available.
Environmental Precautionary Measures	Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Evacuation Criteria	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Only qualified personnel equipped with suitable protective equipment may intervene.
Personal Precautionary Measures	Wear personal protective equipment. See also section 8.

7. HANDLING AND STORAGE

Handling	Use only in area provided with appropriate exhaust ventilation. Ensure that eye flushing systems and safety showers are located close to the working place. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.
Storage	Store in dry, cool, well-ventilated area. Keep containers dry and tightly closed to avoid moisture absorption and contamination. Keep away from open flames, hot surfaces and sources of ignition.
Container	Keep in original container as approved by the manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure information available for this specific product. Safe Work Australia Exposure Standard for Rogue dust (inspirable dust): TWA = 10 mg/m3
Exposure Limits	No Data Available

Biological Limits	Environmental compartment: PNEC value aqua (freshwater): 11.09 mg/l aqua (marine water): 1.11 mg/l aqua (intermittent, freshwater): 17.66 mg/l sediment (marine water): 4.02 mg/kg dwt soil: 1.54 mg/kg dwt sewage treatment plant: 800 mg/l
Engineering Measures	Ensure adequate ventilation. 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	The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. EYE PROTECTION: Tightly fitting safety goggles. HAND PROTECTION: Rubber gloves; PVC. SKIN/BODY PROTECTION: Chemical-resistant overalls. RESPIRATORY PROTECTION: In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a full face mask. Recommended Filter type: ABEK/P2. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe.
Special Hazards Precaustions	Do not flush into surface water or sanitary sewer system. Comply with applicable Community environmental protection legislation.
Work Hygienic Practices	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before re-use. Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystals / granular
Odour	None
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	315 °C
Freezing Point	No Data Available
Solubility	ca. 1080 g/L 25°C
Specific Gravity	1.4 kg/L - 1.5 kg/L
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	460 °C
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
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	Watery solution: same properties as H2SO4. Fine granules, crystals or powder. Fine substance that can cause the irritation of the airways, with coughing and the contraction of the airways. In contact with water the product forms sulphuric acid that can cause burns.
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	No information available.
Reactions That Release Gases or Vapours	Acidic aqueous solution. Gives off hydrogen by reaction with metals.
Release of Invisible Flammable Vapours and Gases	Vapours may form explosive mixture with air.

10. STABILITY AND REACTIVITY

Chemical Stability	Hygroscopic.
Conditions to Avoid	Avoid dust formation. Avoid moisture, heat. Keep away from open flames, hot surfaces and sources of ignition.
Materials to Avoid	Avoid moisture absorption and contamination.
Hazardous Decomposition Products	Gives off hydrogen by reaction with metals (acidic aqueous solution). Vapours may form explosive mixture with air.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	Inhalation: May cause irritation of respiratory tract. Inhalation may provoke the following symptoms: Shortness of breath, cough, dry/sore throat. Skin contact: May be irritating. Skin contact may provoke the following symptoms: Redness, pain, blisters. Eye contact: Causes serious eye damage. Eye contact may provoke the following symptoms: Redness, pain. Ingestion: Ingestion may cause irritation to mucous membranes. Ingestion may provoke the following symptoms: Abdominal pain, burning sensation.
Acute	
Ingestion	Acute Oral Toxicity - Rat LD50: 2,140 mg/kg sulfuric acid
Inhalation	Acute Inhalation Toxicity - Rat (4 h) LC50 >2,400 mg/m3 Sodium sulphate
SkinIrritant	Not classified (Not classified due to data which are conclusive although insufficient for classification.) pH: 1.3
EyeIrritant	Causes serious eye damage. pH: 1.3
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Component: Sodium hydrogensulphate (7681-38-1): Toxic to aquatic organisms. LC50/96h/fish: 7960 mg/l EC50/48h/daphnia: 1766 mg/l LC50/72h/algae: 1900 mg/l
Persistence/Degradability	Hydrolysis in water.

Mobility	Highly mobile in soils.
Environmental Fate	Results of PBT and vPvB assessment: Not required (inorganic).
Bioaccumulation Potential	Low potential. Partition coefficient: n-octanol/water: -2,2 (KOWWIN)
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with all local, state and federal regulations.
Special Precautions for Land Fill	Collect and dispose of waste product at an authorised disposal facility. Prevent product from entering drains.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (Fiji)

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (Malaysia)
ADR

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (New Caledonia)

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	SODIUM BISULPHATE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

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

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

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)

15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	5

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002503

National/Regional Inventories

Australia (AICS)	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	SOBISU1000, SOBISU1001, SOBISU1002, SOBISU1003, SOBISU1004, SOBISU1005, SOBISU1006, SOBISU1600, SOBISU1700, SOBISU1800, SOBISU1801, SOBISU1802, SOBISU1803, SOBISU1804, SOBISU1900, SOBISU1901, SOBISU2000, SOBISU2100, SOBISU2900, SOBISU3000, SOBISU4000, SOBISU5000, SOBISU5001, SOBISU9800, SOBISU0315, SOBISU2515, SOBISU0007, SOBISU1810, SOBISU5025, SOBISU5026
Revision	3
Revision Date	20 Jul 2015
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