

Rainman Technology Pty Ltd

ABN 18 165 066 080
Portable Desalination Systems

MATERIAL SAFETY DATA SHEET

1. Identification

SODIUM METABISULPHITE - FG

Other Names

Sodium Bisulphite, sodium Disulphite, SMBS

Uses

For industrial use, food additive, reducing agent, whitening agent, for professional use.

Company Details

Supplier: Rainman Technology Pty Ltd

Address: 1-9 William Street
Beaconsfield, NSW 2015

Email: info@rainmandesal.com

Emergency Telephone No.:

Business Hours: 000 Fire brigade or Police

After Hours: 000 Fire brigade or Police

Poisons Information Centre: 131126

2. Hazard Identification

U.N. Number: N/A

Class: N/A

Hazchem: N/A

Poisons Schedule: None allocated

EPG: None allocated **Packaging Group:** N/A

ADG Code Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

ASCC Hazard Classification Hazardous according to the criteria of ASCC [NOHSC:1008(2004)]

Risk Statement:

R22 Harmful if swallowed

R31 Contact with acids liberates toxic gas.

R41 Risk of serious eye damage.

R52/53 Harmful to aquatic organisms; may cause long term adverse effects in aquatic environment.

Safety Statement:

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S39 Wear eye/face protection.

S61 Avoid release to the environment. Refer to special instructions/Material Safety

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3. Composition / Information on Ingredients

Chemical Entity	CAS No.	Proportion
Sodium Metabisulphite	7681-57-4	100%

4. First Aid Measures

Swallowed	Rinse mouth thoroughly with water immediately. If swallowed DO NOT induce vomiting. Seek immediate medical assistance.
Eye	Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
Skin	Immediately wash contaminated skin with plenty of water and then wash with soap and water. Remove contaminated clothing and wash before re-use. Seek medical advice.
Inhalation	Remove victim from exposure - avoid becoming a casualty. Seek medical advice.

Health Effects

Symptoms that may arise if the product is mishandled are:

Acute

Swallowed	May cause nausea, gastrointestinal upset, abdominal pain, central nervous system depression, vomiting, diarrhea, violent colic and death.
Eye	Vapours from this product are irritating to the eyes. This product causes irritation, redness and pain. Corneal damage and conjunctivitis may result from eye contact with this product.
Skin	Skin contact causes irritation with reddening, swelling, rash, scaling and/or blistering.
Inhaled	Product is irritating to nose, throat and respiratory tract

Chronic Effects

Repeated or prolonged skin contact may lead to irritant contact dermatitis.

As with any chemical - ingestion, inhalation, and prolonged or repeated skin contact should be avoided by good occupational work practice.

Poison Information Centres in each State capital city can provide additional assistance.

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Advice to Doctor

Treat symptomatically

5. Fire Fighting Measures

Fire / Explosion Hazards

Conditions of Flammability - Non-flammable

Means of Extinction - For small fires use carbon dioxide or dry chemical. For large fires involving sodium bisulphite, flood fire area with water. Do not get the solid stream of water on spilled material.

Flash Point - Not applicable

Auto-ignition Temperature - Not applicable

Upper Flammable Limit - Not applicable

Lower Flammable Limit - Not applicable

Hazardous Combustible Products - Heating causes thermal decomposition, which liberates toxic fumes of sulfur dioxide, and corrosive fumes of nitrogen oxide and nitric acid. Reaction with some metals produces hydrogen gas.

Special Fire Fighting Procedures - Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards - Non-explosive

6. Accidental Release Measures

Leak / Spill - Wear appropriate personal protective equipment. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers. For small spills, dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

For larger spills, remove all ignition sources. Prevent liquid from entering sewers or waterways and dike with inert material (sand, earth, etc.). Collect into containers for reclamation or disposal only if container is suitable to withstand the material. Consider insitu neutralization and disposal.

Deactivating Materials - Dilute solutions of the following: sodium hydroxide, sodium carbonate (soda ash), ammonium hydroxide, hydrated lime.

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7. Handling and Storage

Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for safe Storage:

Store in corrosion-proof area away from incompatible substances. Store in tightly closed container, preferably the supplier container. Store in a cool, well ventilated location away from heat, sparks and flames. Storage tanks should be constructed from polyethylene, polypropylene, fibreglass reinforced plastic (FRP), cross-linked polyethylene (XLPE), or 316 stainless steel to avoid corrosion problems. Tanks should be vented into an alkaline fume recovery system or scrubber. Storage tanks should be protected from water ingress, and maintained structurally in a safe and reliable condition. Store above freezing point.

8. Exposure Controls / Personal Protection

Engineering Controls

Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other: Emergency shower and eyewash should be in close proximity.

Personal Protection

Eyes: The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate.

Skin: Rubber or PVC gloves, overalls or PVC suit, safety or rubber boots

Respiratory: A NIOSH/MSHA approved air-purifying respirator equipped with acid gas/fume, dust, mist cartridges for concentrations up to 50mg/m³ or 20ppm as sulfur dioxide. A powered air-purifying respirator with acid gas cartridges for up to 50ppm sulfur dioxide. A full-facepiece air-supplied respirator if concentrations are for up to and higher than 100ppm sulphur dioxide.

Avoid contact with eyes and skin. Avoid prolonged or repeated exposure. Always wash hands before smoking, eating, drinking or using the toilet.

Flammability

Not combustible material.

Avoid contact with eyes and skin. Avoid prolonged or repeated exposure. Always wash hands before smoking, eating, drinking or using the toilet.

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9. Physical Description / Properties

Physical State Solid

Appearance Solid

Odour Characteristic - Pungent

Colour White

pH 3.5 - 5.0

Vapour Pressure No Data Available

Relative Vapour Density No Data Available

Boiling/Melting Point No Data Available

Solubility 470g/L H₂O (20°C) °C

Freezing Point >150 °C

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 >150 °C

Density No Data Available

Specific Heat No Data Available

Molecular Weight No Data Available

Other Properties

Odour: Pungent odour of sulfur dioxide

Solubility: Soluble in water in water

10. Stability and Reactivity

Chemical Stability:

Stable under normal conditions. Slowly evolves sulfur dioxide under ambient temperatures.

**** KEEP CONTAINERS WELL SEALED ****

Materials to avoid:

Reacts with strong oxidizers, Lewis acids, and mineral acids.

Decomposes with heat.

11. Toxicological Information

Irritancy - Not available

Sensitization - Not available

Chronic/Acute Effects - Not available

Animal Toxicity Data - Not available

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12. Ecological Information

Ecotoxicity - No data available.

Mobility - No information available on mobility for this product. Completely Miscible with water.

Environmental Fate (Exposure) - Do NOT allow product to enter waterways, drains or sewers.

13. Disposal Considerations

Disposal

Refer to State and Land Management Authority and relevant Environmental Protection Authority. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulation or recycled/reconditioned at an approved facility.

14. Transport Information

U.N. Number: N/A

Class: N/A

Hazchem: N/A

Poisons Schedule: None allocated

EPG: N/A

Packaging Group: N/A

Classified as hazardous according to criteria of NOHSC

NOT Classified as a Dangerous Good for the purpose of road and rail transport

15. Regulatory Information

Poisons Schedule

EPG

AICS Name No data available.

General Information No Data Available

Poisons Schedule (Aust) No Data Available

AICS Name DISULFUROUS ACID, DISODIUM SALT

16. Other Information

Legend to Abbreviations and Acronyms

< less than > greater than

AICS Australian Inventory of Chemical Substances

CAS Chemical Abstracts Service (Registry Number)

CO₂ Carbon Dioxide

COD Chemical Oxygen Demand

Deg C degrees Celsius

ERMA Environmental Risk Management Authority

g gram **g/cm³** grams per cubic centimetre **g/L** grams per litre

HSNO Hazardous Substance and New Organism

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IDLH Immediately Dangerous to Life and Health

Immiscible liquids are insoluble in each other

Kg kilogram **Kg/m³** kilograms per cubic metre

LC 50 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 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 miscible

miscible liquids form one homogeneous liquid phase regardless of the amount of either component present

mm millimetre **mPa.s** milli Pascal per second

N/A Not Applicable

NOHSC National Occupational Health and Safety Commission

OECD Organization for Economic Co-operation and Development

PEL Permissible Exposure Limit

Ppb parts per billion **ppm** parts per million

Ppm/2h parts per million per 2 hours **ppm/6h** parts per million per 6 hours

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 (number)

W weight

Company Disclaimer

All information contained in this data sheet is as accurate and up-to-date as possible. Since Rainman Technology Pty Ltd cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application.

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