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SAFETY DATA SHEET SODIUM HYDROSULPHITE 90% REVISION 2, DATE 17 JAN 24

Product Name	Sodium Hydrosulphite 90%
Other Names	Sodium dithionite
Uses	Whitening agent for industrial use.
Chemical Family	No Data Available
Chemical Formula	H ₂ O ₄ S ₂ .2Na
Chemical Name	Dithionous acid, disodium salt
Product Description	No Data Available

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	Self-heating Substances and Mixtures - Category 1 Acute Toxicity (Oral) - Category 4

Serious Eye Damage/Irritation - Category 1

Pictograms



Signal Word

Danger

Hazard Statements

H251 Self-heating; may catch fire.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
EUH031 Contact with acids liberates toxic gas.

Precautionary Statements

Prevention

P235 + P410 Keep cool. Protect from sunlight.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.

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.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330 Rinse mouth.

Storage

P407 Maintain air gap between stacks or pallets.
P420 Store separately.

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 hydrosulphite	H2O4S2.2Na	7775-14-6	74 - 90 %
Disodium disulphite	H2O5S2.2Na	7681-57-4	5 - 7 %
Sodium carbonate	CH2O3.2Na	497-19-8	0.6 - 7 %
Impurities	Unspecified	Unspecified	0.2 - 0.4 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Immediately 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. Immediately call a Poison Centre or doctor/physician for advice.
Skin	IF ON SKIN (or hair): Immediately flush skin and hair with running water for at least 15 minutes, while removing contaminated clothing and shoes. 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. Get immediate medical advice/attention. 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. Symptoms may be delayed. Keep victim calm and warm. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance. *Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes serious eye damage.
Medical Conditions Aggravated by Exposure	It is recommended that asthma sufferers do not come into contact with sodium hydrosulfite nor its decomposition products as they can be adversely affected.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers or in contact with substance. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.
Flammability Conditions	SPONTANEOUSLY COMBUSTIBLE SUBSTANCE: Self-heating; may catch fire! May ignite on contact with moist air or moisture.
Extinguishing Media	For Dithionite (Hydrosulfite/Hydrosulphite) UN1384, USE FLOODING AMOUNTS OF WATER for SMALL AND LARGE fires to stop the reaction. Smothering will not work for these materials, they do not need air to burn. *DO NOT use water unless flooding amounts are available for fire-fighting.
Fire and Explosion Hazard	Risk of violent reaction or explosion! May burn rapidly with flare-burning effect. May react vigorously or explosively on contact with water. May re-ignite after fire is extinguished. Containers may explode when heated.
Hazardous Products of Combustion	Fire will produce irritating, toxic and/or corrosive gases, including oxides of Sulfur and methyl mercaptan.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may cause pollution. Runoff may create fire or explosion hazard!
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 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	1S

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do
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	not touch or walk through spilled material. Avoid generating dust. Avoid breathing dust/vapours and contact with eyes, skin and clothing.
Clean Up Procedures	For spills of Dithionite (Hydrosulfite/Hydrosulphite) UN1384, dissolve in 5 parts water; Use clean, non-sparking tools to collect material and place it into loosely covered plastic containers for proper disposal (see SECTION 13). *DO NOT return spilled material to original container for re-use.
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas.
Decontamination	Wash 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	Immediately isolate spill or leak area. Evacuate personnel to safe areas. Keep unauthorised personnel away. Stay upwind and/or uphill.
Personal Precautionary Measures	Wear positive pressure self-contained breathing apparatus (SCBA). Fully encapsulating, vapour-protective clothing should be worn for spills and leaks with no fire.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Minimise dust generation and accumulation. Avoid breathing dust/vapours and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). SELF-HEATING SUBSTANCE: May catch fire! Keep cool. Do not open warm or swollen product containers.
Storage	Store separately in a cool, dry and well-ventilated place. Protect from sunlight. Protect from moisture. Keep dry - reacts with water, may lead to drum rupture. Keep container tightly closed - check regularly for spills. Maintain air gap between stacks/pallets. Keep away from heat and sources of ignition - No smoking. Store away from foodstuffs and other (incompatible) materials (see SECTION 10). *Large quantities of the product should not be kept in stockrooms with sprinkler installations due to a possible self inflammation by small quantities of water.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. COMPONENT: Disodium disulphite (CAS No. 7681-57-4): - Safe Work Australia Exposure Standard: TWA = 5 mg/m ³ . - New Zealand Workplace Exposure Standard: TWA = 5 mg/m ³ (dsen); (rsen).
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. *Use explosion-proof electrical/ventilating/lighting equipment.
Personal Protection Equipment	- Respiratory protection: Wear respiratory protection if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended: Use a full face respirator with multi purpose combination or type AXBEK respirator cartridges (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Tightly fitting safety goggles. - Hand protection: Wear protective gloves. Recommended: Impervious gloves, e.g. butyl rubber. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Wear fire/flame resistant/retardant clothing and anti-static boots. Always wear thermal protective clothing when handling molten substances.
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	Solid
Appearance	Powder
Odour	No information available.
Colour	White
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	Soluble in water
Specific Gravity	2.38 (Sodium dithionite)
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	Potential dust explosion hazard.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion! May burn rapidly with flare-burning effect. May re-ignite after fire is extinguished.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	May react vigorously or explosively on contact with water.
Properties That May Initiate or Contribute to Fire Intensity	SPONTANEOUSLY COMBUSTIBLE SUBSTANCE: Self-heating; may catch fire! May ignite on contact with moist air or moisture.
Reactions That Release Gases or Vapours	Decomposes on heating emitting toxic fumes, including Sulfur dioxide and methyl mercaptan.

Release of Invisible Flammable Vapours and Gases No information available.

10. STABILITY AND REACTIVITY

General Information	May ignite on contact with moist air or moisture. Contact with acids liberates toxic gas.
Chemical Stability	Stable under proper operation and storage conditions.
Conditions to Avoid	Avoid generating dust. Avoid exposure to air and moisture/humidity. Keep away from heat and sources of ignition.
Materials to Avoid	Incompatible/reactive with strong acids, strong alkalis, strong oxidants, strong reducing agents.
Hazardous Decomposition Products	Decomposes on heating emitting toxic fumes, including Sulfur dioxide and methyl mercaptan.
Hazardous Polymerisation	No information available.

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: May cause skin irritation. - Eye damage/irritation: Causes serious eye damage (Disodium disulphite, Sodium carbonate). - Respiratory/skin sensitisation: May cause skin sensitisation in sensitive individuals. May cause respiratory sensitisation in sensitive individuals, producing asthma-like symptoms. - Germ cell mutagenicity: No information available. - Carcinogenicity: Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC). - Reproductive toxicity: No information available. - STOT (single exposure): COMPONENT: Sodium carbonate: May cause respiratory irritation. - STOT (repeated exposure): No information available. - Aspiration toxicity: No information available. <p>Information on likely routes of exposure:</p> <ul style="list-style-type: none"> - Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain. Extremely large amounts may produce central nervous system stimulation, seizures, hypotension, and cardiovascular collapse. - Eye contact: A severe eye irritant. Contamination of eyes can result in permanent injury. - Skin contact: Contact with skin may result in irritation. May cause skin sensitisation in sensitive individuals. - Inhalation: Material may be irritant to the mucous membranes of the respiratory tract (airways). <p>Chronic effects: No information available.</p>
Acute	
Ingestion	<p>Acute toxicity (Oral):</p> <p>COMPONENT: Disodium disulphite (CAS No. 7681-57-4):</p> <ul style="list-style-type: none"> - LD50, Rat: 1,131 mg/kg <p>COMPONENT: Sodium carbonate (CAS No. 497-19-8):</p> <ul style="list-style-type: none"> - LD50, Rat: 4,090 mg/kg
Other	<p>Acute toxicity (Dermal):</p> <p>COMPONENT: Disodium disulphite (CAS No. 7681-57-4):</p> <ul style="list-style-type: none"> - LD50, Rat: >2,000 mg/kg
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	<p>Aquatic toxicity:</p> <p>COMPONENT: Sodium carbonate (CAS No. 497-19-8):</p>
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	- LC50, Fish: 300 mg/l (96 h) [Supplier's SDS]. - EC50, Crustacea: 200 mg/l (48 h) [Supplier's SDS].
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	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. Incineration disposal is recommended.
Special Precautions for Land Fill	Contaminated packaging: Containers may still present chemical hazard when empty. Keep away from heat and sources of ignition. Recycle if possible.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
EPG	25 Spontaneously Combustible Substances (Air And/Or Water Reactive)
UN Number	1384
Hazchem	1S
Pack Group	II
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
UN Number	1384
Hazchem	1S
Pack Group	II
Special Provision	No Data Available
EMS	F-A, S-J
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
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Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
UN Number	1384
Hazchem	1S
Pack Group	II
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)
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15. REGULATORY INFORMATION

General Information	SODIUM HYDROSULFITE is listed in Schedule 5 of the SUSMP when packed for domestic use, except in preparations containing 10 % or less of sodium hydrosulfite.
Poisons Schedule (Aust)	Not Scheduled

National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Determined
China (IECSC)	Listed
Europe (EINECS)	Listed
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste I)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes	SOHYSU7100, SOHYSU7101, SOHYSU7102, SOHYSU7103, SOHYSU7125, SOHYSU7200
Revision	2
Revision Date	17 Jan 2024
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 Celsius 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 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</p> <p>UN United Nations wt Weight</p>