

## Safety Data Sheet SODIUM HYDROSULFITE

SDS no. AJ85E6G5 • Version 1.0 • Date of issue: 2024-07-09

### SECTION 1: Identification

#### GHS Product identifier

Product name SODIUM HYDROSULFITE

#### Other means of identification

Name Product Code

SODIUM HYDROSULFITE TG ST023

SODIUM HYDROSULFITE LR SL023

Sodium dithionite

#### Recommended use of the chemical and restrictions on use

Vat dyeing of fibres and textiles; stripping agent for dyes; laboratory reagent; bleaching sugar, soaps, oils and groundwood; oxygen scavenger for synthetic rubbers.

#### Supplier's details

Name ChemSupply Australia Pty Ltd  
Address 38-50 Bedford Street  
5013 Gillman South Australia  
Australia

Telephone 08 8440 2000  
email [www.chemsupply.com.au](http://www.chemsupply.com.au)

#### Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

### SECTION 2: Hazard identification

#### General hazard statement

Dangerous goods of Class 4.2 (Spontaneously Combustible) are incompatible in a placard load with any of the following: Class 1, Class 2.1, Class 2.2, Class 2.3, Class 3, Class 4.1, Class 5, Class 7.

#### Classification of the substance or mixture

#### GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4
- Self-heating substances and mixtures, Cat. 1

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed

H251

Self-heating; may catch fire

Precautionary statement(s)

P235

Keep cool.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,

P407

Maintain air gap between stacks or pallets.

P410

Protect from sunlight.

P420

Store separately.

P501

Dispose of contents/container to an approved waste disposal facility

Other hazards which do not result in classification

Risk of dust explosion! Flammable on contact with water or temperature's above 100 °C, may cause self ignition. Heats spontaneously in contact with air and moisture.

## SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 174.11

Components

Component	CAS no.	Concentration
Sodium hydrosulfite (EC no.: 231-890-0; Index no.: 016-028-00-1)	7775-14-6	100 % (weight)
CLASSIFICATIONS: Self-heating substances and mixtures, Cat. 1; Acute toxicity, oral, Cat. 4. HAZARDS: H251 - Self-heating; may catch fire; H302 - Harmful if swallowed.		

## SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

In case of skin contact

Wash affected areas with copious quantities of water. Remove contaminated clothing

and wash before re-use. If swelling, redness, blistering or irritation occurs seek medical advice.

In case of eye contact

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.

If swallowed

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

**Most important symptoms/effects, acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**Indication of immediate medical attention and special treatment needed, if necessary**

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

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## **SECTION 5: Fire-fighting measures**

**Suitable extinguishing media**

DO NOT USE WATER, CO<sub>2</sub> OR FOAM ON SUBSTANCE ITSELF!

SMALL FIRE: Use dry chemical, soda ash or lime.

LARGE FIRE: Use DRY chemical, soda ash or lime or withdraw and let the fire burn. May require flooding with water in order to eliminate hazardous reactions since the substances generate their own oxygen. Smothering with DRY sand may be ineffective.

If safe to do so, move undamaged containers from the fire area. Cool containers with flooding quantities of water until well after the fire is out. Avoid getting water inside containers or in contact with substance.

CAUTION: Dithionite (hydrosulfite) fires may require flooding with water in order to eliminate hazardous reactions since the substances generate their own oxygen. Smothering with DRY sand may be ineffective.

**Specific hazards arising from the chemical**

Hazards from Combustion Products: May liberate toxic fumes in fire (sulfur oxides).

May ignite on contact with air, moist air or water. May react vigorously or explosively on contact with water. May produce flammable, poisonous and/or corrosive gases on contact with air, moist air or water. May re-ignite after fire is extinguished. Fire will produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Run-off may create multiple fire or explosion hazard. May be kept in a protective medium.

**Special protective actions for fire-fighters**

Wear SCBA and fully encapsulating, gas-tight suit when handling these substances. Always wear thermal protective clothing when handling molten substances. Structural firefighter's uniform will only provide limited protection.

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## **SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms. Evacuate the area of all non-essential personnel.

Wear protective clothing specified for normal operations (see Section 8)

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks or flame) within at least 25m. Do NOT touch or walk through this product. Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Prevent entry into waterways, drains, confined areas.

Small Spill: Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimise spreading or contact with rain. Use clean, non-sparking tools to collect absorbed material and place it in loosely-covered metal or plastic containers for later disposal.

Water spray may be used to knock down or divert vapour clouds.  
DO NOT GET WATER inside containers or in contact with substance.

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## SECTION 7: Handling and storage

### Precautions for safe handling

Avoid generation or accumulation of dusts. Avoid prolonged or repeated contact with skin and eyes . All electrical equipment must be flameproofed. Use in well ventilated areas away from all ignition sources.  
In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

Store in a cool,dry place. Store away from combustible materials. Store away from organic materials. Store away from oxidizing agents. Keep containers closed at all times. Keep container dry Keep away from heat and other sources of ignition. No special storage requirements. Store away from acids.  
Air and moisture sensitive.

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## SECTION 8: Exposure controls/personal protection

### Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

### Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

#### Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161 , Occupational protective gloves - Selection, use and maintenance.

#### Body protection

Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

#### Respiratory protection

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state  
Appearance  
Color

Solid  
White to gray-white granular or flake.  
No data available.

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Odor	Slight sulfur dioxide odour.
Odor threshold	No data available.
Melting point/freezing point	~300 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	Danger of spontaneous combustion with water.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	> 100 °C (open cup)
Explosive properties	No data available.
Auto-ignition temperature	> 200 °C
Decomposition temperature	> 100 °C
Oxidizing properties	No data available.
pH	~ 7 - 9 (50 g/l, H <sub>2</sub> O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble. Solubility in Organic Solvents: Insoluble in alcohol.
Partition coefficient n-octanol/water (log value)	log Pow: < -4.7 (calculated)
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.5
Relative vapor density	No data available.
Particle characteristics	No data available.

#### Supplemental information regarding physical hazard classes

No data available.

#### Further safety characteristics (supplemental)

Other Information: Strong reducing agent.

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## SECTION 10: Stability and reactivity

### Reactivity

Risk of dust explosion! Flammable on contact with water or temperature's above 100 °C, may cause self ignition. Heats spontaneously in contact with air and moisture.

### Chemical stability

Stable when stored under nitrogen or in closed containers at room temperature. Heats spontaneously when in contact with moisture and air forming bisulfite and bisulfate. Risk of dust explosion! Avoid heating.

### Possibility of hazardous reactions

Contact with acids liberates toxic gas (sulfur oxides). Contact with water/moisture/air causes the material to oxidise more readily forming bisulfite and bisulfate. Risk of dust explosion!

### Conditions to avoid

Exposure to moisture. Exposure to air. Dust generation. Heat, flames, ignition sources and incompatibles.

### Incompatible materials

Water, air, oxidising agents (peroxides, potassium chlorate and potassium permanganate), combustible materials, organic compounds, strong acids, salts of oxyhalogenic acids, and sodium chlorite.

### Hazardous decomposition products

Sulfur oxides, sodium and sodium oxides.

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## **SECTION 11: Toxicological information**

### **Information on toxicological effects**

#### **Acute toxicity**

Ingestion: Harmful if swallowed. May cause irritation to the gastrointestinal tract irritation. May cause abdominal pain, nausea, vomiting, colic and diarrhea, circulatory disturbances, central nervous system depression, irritability, restlessness, convulsions, cyanosis, respiratory and cardiovascular collapse, and death. Human lethal dose ~30 grams.

Inhalation: May be harmful if inhaled. May cause severe irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, dyspnoea, shortness of breath, headache, nausea and vomiting. High concentration may cause lung damage (pulmonary edema).

#### **Skin corrosion/irritation**

May be harmful if absorbed through the skin. Causes irritation to skin. May cause rash or a burning feeling on contact. Contact dermatitis may develop in sensitive individuals.

#### **Serious eye damage/irritation**

Causes eye irritation, redness and pain. May cause burns and possible damage to vision.

#### **Respiratory or skin sensitization**

No data available

#### **Germ cell mutagenicity**

No data available.

#### **Carcinogenicity**

No data available.

#### **Reproductive toxicity**

No data available.

#### **Summary of evaluation of the CMR properties**

No data available.

#### **Specific target organ toxicity (STOT) - single exposure**

No data available.

#### **Specific target organ toxicity (STOT) - repeated exposure**

No data available.

#### **Aspiration hazard**

No data available.

#### **Additional information**

Chronic Effects: Ingestion of large amounts may also cause hypotension and cardiovascular collapse. Hypersensitivity reactions, occurring more frequently in asthmatics, may produce bronchoconstriction, diaphoresis, flushing, tachpnea, dyspnea and further health complications. Exposure may induce an allergic reaction.

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## **SECTION 12: Ecological information**

### **Toxicity**

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Ecotoxicity: Reacts with water to form toxic decomposition products.

Acute Toxicity - Fish: LC50 (L. idus): 10.0 - 100.0 mg/l/96 h.

Acute Toxicity - Daphnia: EC50 (Daphnia magna): 10.0 - 100.0 mg/l/48 h.

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## SECTION 13: Disposal considerations

### Disposal methods

#### Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

#### Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

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## SECTION 14: Transport information

### ADG (Road and Rail)

UN Number: 1384

Class: 4.2

Packing Group: II

Proper Shipping Name: SODIUM DITHIONITE (SODIUM HYDROSULFITE)

### Hazchem emergency action code (EAC)

1Y

### IMDG

UN Number: 1384

Class: 4.2

Packing Group: II

EMS Number:

Proper Shipping Name: SODIUM DITHIONITE (SODIUM HYDROSULFITE)

### IATA

UN Number: 1384

Class: 4.2

Packing Group: II

Proper Shipping Name: SODIUM DITHIONITE (SODIUM HYDROSULFITE)

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### Australia SUSMP

Poison Schedule: S5

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## SECTION 16: Other information

### Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), [hcis.safeworkaustralia.gov.au](https://hcis.safeworkaustralia.gov.au)

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)