

Safety Data Sheet



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **SODIUM HYDROSULPHIDE**

Other name(s): Sodium hydrosulfide; Sodium hydrogen sulphide; Sodium bisulphide; Sodium mercaptan; Sodium sulphhydrate; Sodium hydrosulfide; Sodium hydrosulfide dihydrate.

Recommended Use of the Chemical and Restrictions on Use Paper pulping, dyestuffs processing, rayon and cellophane desulfurising, unhairing hides, bleaching agent.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
East Melbourne Victoria 3002
Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Corrosive to Metals - Category 1
Acute Oral Toxicity - Category 3
Skin Corrosion - Sub-category 1B
Eye Damage - Category 1

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:
Acute Aquatic Toxicity - Category 1

SIGNAL WORD: DANGER



Hazard Statement(s):

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary Statement(s):

Prevention:

P234 Keep only in original container.
P260 Do not breathe dust / fume / gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

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Response:

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

Storage:

P405 Store locked up.
P406 Store in corrosive resistant container with a resistant inner liner.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards:

AUH031 Contact with acids liberates toxic gas.
AUH071 Corrosive to the respiratory tract.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Sodium hydrosulfide	16721-80-5	70%	H290 H301 H314 H400
Water of crystallisation	7732-18-5	>25%	-
Other component(s)	-	to 100%	-

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Do not use mouth-to-mouth method if victim inhaled the chemical. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device if patient is not breathing. Seek immediate medical advice.

Skin Contact:

If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor. For skin burns, cover with a clean, dry dressing until medical help is available.

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Eye Contact:

Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.

Ingestion:

Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Can cause corneal burns. Possible mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemical:

Corrosive chemical. Combustible solid. Containers may rupture or explode in heat of fire.

Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes, including those of hydrogen sulfide, and oxides of sulfur. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Shut off all possible sources of ignition. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Wear protective equipment to prevent skin and eye contact and breathing in dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Use non-sparking tools.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid skin and eye contact and breathing in dust. Wash hands before breaks and at the end of the work day. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities:

Store in a cool, dry, well ventilated place. Store away from sources of heat or ignition. Store away from incompatible materials described in Section 10. Protect from moisture. Do not store in aluminium, copper, or zinc containers. Keep containers closed when not in use - check regularly for spills.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for constituent(s) and decomposition product(s):

Dusts not otherwise classified: 8hr TWA = 10 mg/m³

Hydrogen sulfide: 8hr TWA = 14 mg/m³ (10 ppm), 15 min STEL 21 mg/m³ (15 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls:

Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. 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
Colour: Light Yellow

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Odour:	Rotten egg - like
Odour Threshold:	Not available
Solubility:	Soluble in water.
Specific Gravity:	Not available
Relative Vapour Density (air=1):	Not available
Vapour Pressure (20 °C):	Not available
Flash Point (°C):	90
Flammability Limits (%):	4.3-45.5
Autoignition Temperature (°C):	Not available
Melting Point/Range (°C):	52.2
Boiling Point/Range (°C):	164.4
pH:	12.0

10. STABILITY AND REACTIVITY

Reactivity:	Contact with acids liberates toxic gas. Hygroscopic: absorbs moisture or water from surrounding air.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Sodium hydrosulfide releases highly toxic and highly flammable hydrogen sulfide gas if mixed with an acid or if exposed to excessive heat. Hydrogen sulfide has a pungent rotten egg odour. Corrosive to aluminium, copper, zinc. Hazardous polymerisation will not occur.
Conditions to avoid:	Avoid exposure to moisture. Avoid exposure to heat, sources of ignition, and open flame. Avoid dust generation.
Incompatible materials:	Incompatible with acids , water , moisture , carbon , diazonium salts , oxidising agents, aluminium, copper, zinc.
Hazardous decomposition products:	Hydrogen sulfide. Oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion:	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye contact:	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Skin contact:	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Inhalation:	Corrosive to the respiratory tract.
Acute toxicity:	
Oral LD50 (rat): ATE = 194 mg/kg	
Dermal LD50 (rabbit): ATE = >2000 mg/kg	
Inhalation LC50 (rat): ATE = >5 mg/L	

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Respiratory or skin sensitisation: No information available.

Chronic effects: May cause impaired memory, paralysis, impairment of the central nervous system.

Aspiration hazard: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Avoid contaminating waterways.

Persistence/degradability: No information available.

Bioaccumulative potential: No information available.

Mobility in soil: No information available.

Aquatic toxicity: Very toxic to aquatic organisms.

Terrestrial toxicity: Toxic to terrestrial vertebrates.

13. DISPOSAL CONSIDERATIONS

Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

14. TRANSPORT INFORMATION

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.



UN No: 2949
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: SODIUM HYDROSULPHIDE, HYDRATED
Hazchem or Emergency Action Code: 2X

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No: 2949
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: SODIUM HYDROSULPHIDE HYDRATED

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IMDG EMS Fire: F-A
IMDG EMS Spill: S-B

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN No: 2949
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: SODIUM HYDROSULPHIDE HYDRATED

15. REGULATORY INFORMATION

Classification:

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:

Corrosive to Metals - Category 1
Acute Oral Toxicity - Category 3
Skin Corrosion - Sub-category 1B
Eye Damage - Category 1

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:

Acute Aquatic Toxicity - Category 1

Hazard Statement(s):

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.

Poisons Schedule (SUSMP): None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Supplier Safety Data Sheet; 01/ 2018.

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:

5 Yearly Revised Primary SDS
Change in Hazardous Chemical Classification
Update in Toxicological Information

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This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.