



# SAFETY DATA SHEET

Revision date: 23-Jul-2024

Revision Number 3

## Section 1: Identification

### Product identifier

**Product Name** SODIUM HYDROSULPHIDE 27% w/w SOLUTION

**Product Code(s)** 000000054585

### Other means of identification

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

**Recommended use** Mining chemical.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier**

IXOM Operations Pty Ltd (Incorporated in Australia)  
NZBN: 9429041465226  
Street Address: 166 Totara Street  
Mt Maunganui South  
New Zealand

Telephone Number: +64 9 368 2700

Facsimile: +64 9 368 2710

### Emergency telephone number

**Emergency Telephone** 0 800 734 607 (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.

## Section 2: Hazard identification

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

Classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

### GHS Classification

Corrosive to metals	Category 1
Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Chronic aquatic toxicity	Category 4

### Label elements



**Signal word**

Danger

**Hazard statements** H290 - May be corrosive to metals  
H302 - Harmful if swallowed  
H312 - Harmful in contact with skin  
H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage  
H413 - May cause long lasting harmful effects to aquatic life

**Precautionary Statements - Prevention**

Keep only in original packaging.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Do not get in eyes, on skin, or on clothing.  
Wash face, hands and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/clothing and eye/face protection.  
Avoid release to the environment.

**Precautionary Statements - Response**

Specific treatment (see First aid on this SDS).

**Eyes**

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 CENTER or doctor/physician.

**Skin**

IF ON SKIN: Gently wash with plenty of soap and water.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.  
Wash contaminated clothing before reuse.

**Inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

**Spill**

Absorb spillage to prevent material damage.

**Precautionary Statements - Storage**

Store locked up.  
Store in corrosion resistant container with a resistant inner liner.

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

**Other hazards which do not result in classification**

Contact with acids liberates toxic gas.

**Section 3: Composition/information on ingredients**

Chemical name	CAS No.	Weight-%
Sodium hydrosulfide	16721-80-5	27
Non hazardous component(s)	-	to 100

## Section 4: First-aid measures

### Description of first aid measures

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
<b>Ingestion</b>	Do NOT induce vomiting. Drink 1 or 2 glasses of water. Get immediate medical attention.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning.
<b>Effects of Exposure</b>	No information available.

### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Can cause corneal burns. Treat symptomatically.
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## Section 5: Fire-fighting measures

<b>Hazchem code</b>	2X
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### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Dry chemical, CO2, water spray or regular foam.
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<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
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### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	Contact with acids may release hydrogen sulfide, a toxic and flammable gas that may form explosive mixtures in air. Corrosive hazard. Wear protective gloves/clothing and eye/face protection. Environmentally hazardous.
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### Special protective actions for fire-fighters

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
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## Section 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Do not eat, drink or smoke when using this product. Evacuate personnel to safe areas. Avoid contact with skin and eyes. Do not breathe vapor or mist. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Use personal protective equipment as required. Wash thoroughly after handling.

**For emergency responders** Use personal protection recommended in Section 8.

### Environmental precautions

**Environmental precautions** Local authorities should be advised if significant spillages cannot be contained.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** For residues, preferably oxidize with a weak 3-5% hydrogen peroxide solution to stop release of hydrogen sulphide. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

### Precautions to prevent secondary hazards

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: Handling and storage

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin and eyes. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Use personal protection equipment. Wash thoroughly after handling. Keep out of reach of children.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Incompatible materials** Acids. Metals. Aluminum. Copper. Zinc. Diazonium salts.

## Section 8: Exposure controls/personal protection

### Control parameters

**Exposure Limits** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority.

### Appropriate engineering controls

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

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, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.



- Eye/face protection** Tight sealing safety goggles. If splashes are likely to occur: Face protection shield.
- Hand protection** Elbow-length impervious gloves.
- Skin and body protection** Overalls. Boots. Apron.
- Respiratory protection** If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
- Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained.

**Section 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	No information available
<b>Color</b>	Yellowish
<b>Odor</b>	Hydrogen sulfide
<b>Odor threshold</b>	No information available

Property	Values	Remarks • Method
pH	12.0-12.3	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	Not applicable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	1.17-1.21	None known
Water solubility	No data available	None known
Solubility(ies)	Miscible in water	None known
Partition coefficient	No data available	None known
Autoignition temperature	Not applicable	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known

Dynamic viscosity No data available None known

Other information  
Particle characteristics

## Section 10: Stability and reactivity

### Reactivity

Reactivity Corrosive to metals. Contact with acids liberates toxic gas.

### Chemical stability

Stability Stable under normal conditions.

### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

### Possibility of hazardous reactions

Possibility of hazardous reactions Contact with acids liberates toxic gas.

### Conditions to avoid

Conditions to avoid Heat.

### Incompatible materials

Incompatible materials Acids. Metals. Aluminum. Copper. Zinc. Diazonium salts.

### Hazardous decomposition products

Hazardous decomposition products Hydrogen sulfide. Oxides of sulfur. Sodium oxides.

## Section 11: Toxicological information

### Acute toxicity

#### Information on likely routes of exposure

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

**Inhalation** May cause irritation.

**Eye contact** Corrosive to the eyes and may cause severe damage including blindness.

**Skin contact** Contact causes severe skin irritation and possible burns.

**Ingestion** Can burn mouth, throat, and stomach.

**Symptoms** Irritation/Corrosion. May cause redness and tearing of the eyes. Erythema (skin redness). Burning.

### Acute toxicity

**Numerical measures of toxicity**

No information available

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydrosulfide	= 96-215 mg/kg ( Rat )	-	= 1500 mg/m <sup>3</sup> ( Rat ) 14 min

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Causes severe burns. Classification is based on mixture calculation methods based on component data.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage. Classification is based on mixture calculation methods based on component data.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. (OSHA - Occupational Safety and Health Administration) (IARC - International Agency for Research on Cancer) (NTP - National Toxicology Program).
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.
<b>Data used to identify the health effects</b>	Refer to Section 16 for Key literature references and sources for data used to compile the SDS.

**Section 12: Ecological information**

**Ecotoxicity**

<b>Aquatic ecotoxicity</b>	Keep out of waterways. May cause long lasting harmful effects to aquatic life.
<b>Terrestrial ecotoxicity</b>	There is no data for this product.

**Persistence and degradability** No information available.

#### **Bioaccumulative potential**

**Bioaccumulation** There is no data for this product.

#### **Component Information**

Chemical name	Partition coefficient
Sodium hydrosulfide	-3.5

#### **Mobility in soil**

**Mobility** No information available.

#### **Other adverse effects**

No information available.

### **Section 13: Disposal considerations**

#### **Waste treatment methods**

##### **Waste from residues/unused products**

Dispose of product in packaging in a way that is consistent with the EPA Consolidation 30 April 2021 of the Hazardous Substances (Disposal) Notice 2017 and the Act. Treat the substance using a method that changes the characteristics or composition of the substance so that the substance is no longer a hazardous substance; or export the substance from New Zealand as waste. Class 6 and 8 chemicals – may be discharged into the environment if a tolerable exposure limit has been set for the substance (or a component of that chemical); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the tolerable exposure limit. If there is not tolerable exposure limit for the substance, then it may only be discharged into the environment if the substance is very rapidly converted to substances that are not hazardous substances..

##### **Contaminated packaging**

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from. Packages may only be reused or recycled if:

- the substance has a physical hazard other than corrosive to metal, and has been treated to remove any residual contents of the hazardous substance;
- or for substances that have a health or environmental hazard, or corrosive to metal, the contents of the residue in the package are below the threshold for the substance to be classified as hazardous in the Hazardous Substances (Hazard Classification) Notice 2020.

### **Section 14: Transport information**

#### **ROAD AND RAIL TRANSPORT**

Classified as a Dangerous Good according to NZS 5433 Transport of Dangerous Goods on Land; DANGEROUS GOODS.

##### **UN number or ID number Proper shipping name**

3266  
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROSULPHIDE)



<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>Hazchem code</b>	2X
<b><u>IATA</u></b>	Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.
<b>UN number</b>	3266
<b>UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROSULPHIDE)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b><u>IMDG</u></b>	Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.
<b>UN number</b>	3266
<b>UN proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (CONTAINS SODIUM HYDROSULPHIDE)
<b>Transport hazard class(es)</b>	8
<b>Packing group</b>	II
<b>IMDG EMS Fire</b>	F-A
<b>IMDG EMS Spill</b>	S-B
<b>Marine pollutant</b>	Not applicable

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
No information available

**Special precautions for user**  
Please refer to the applicable dangerous goods regulations for additional information

**Section 15: Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EPA New Zealand HSNO approval code or group standard** HSR002491 - Additives, Process Chemicals and Raw Materials (Corrosive)

**National regulations** There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

**Certified handlers, tracking and controlled substance license requirements** Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information  
Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information  
Controlled substance licenses are required to possess certain explosives, vertebrate toxic agents and fumigants. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**International Inventories**

<b>NZIoC</b>	All the constituents of this material are listed on the New Zealand Inventory of Chemicals.
<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>IECSC</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AIIC</b>	All the constituents of this material are listed on the Australian Inventory of Industrial Chemicals.
<b>TCSI</b>	Contact supplier for inventory compliance status.

**Legend:**

**NZIoC** - New Zealand Inventory of Chemicals

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AIIC**- Australian Inventory of Industrial Chemicals

**TCSI** - Taiwan Chemical Substance Inventory

**Section 16: Other information**

Supplier Safety Data Sheet 03/ 2023

<b>Prepared By</b>	This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and SDS Services).
<b>Revision date:</b>	23-Jul-2024
<b>Reason(s) For Issue:</b>	Revised Primary SDS Updated Formulation Change to Product Name Change in NZ classification Change in Approval Number (for NZ)

**Revision Note:**

\*\*\*Indicates updated data since last publication.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

SVHC: Substances of Very High Concern for Authorization:  
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
 STOT: Specific Target Organ Toxicity  
 ATE: Acute Toxicity Estimate  
 LC50: 50% Lethal Concentration  
 LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
**	Hazard Designation	+	Sensitizers
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Disclaimer**

**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.**

**End of Safety Data Sheet**