

## SAFETY DATA SHEET

### Section 1: Identification

Product name: Sodium sulfide  
Product use: For laboratory research purposes.  
Supplier: Trace Sciences International  
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Richmond Hill, ON L4B 3N6  
CANADA  
Telephone: +1 905-770-1100  
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### Section 2: Hazard(s) Identification

#### 2.1 GHS Classification

Self-heating substances and mixtures (Category 1), H251  
Corrosive to Metals (Category 1), H290  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Dermal (Category 3), H311  
Skin corrosion (Category 1B), H314  
Serious eye damage (Category 1), H318  
Short-term (acute) aquatic hazard (Category 1), H400

#### 2.2 GHS Label elements, including precautionary statements

##### Pictogram



##### Signal word

Danger

##### Hazard statement(s):

H251 Self-heating: may catch fire.  
H290 May be corrosive to metals.  
H301 + H311 Toxic if swallowed or in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.

##### Precautionary statement(s):

P234 Keep only in original packaging.  
P235 Keep cool.  
P260 Do not breathe dust.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

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 CENTER/ doctor.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
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 plant.

### Section 3: Composition/ Information on Ingredients

**Formula** : Na<sub>2</sub>S  
**Molecular Weight** : 78.04 g/mol

Material	CAS-No.	EC-No.	Index-No.	Concentration
Sodium sulfide	1313-82-2	215-211-5	016-009-00-8	<=100%

### Section 4: First-Aid Measures

#### 4.1 Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move person out of dangerous area if safe to do so.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water for at least 15 minutes. Use chemical shower if available. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contacts if possible.

##### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

### Section 5: Fire-Fighting Measures

#### 5.1 Conditions of flammability

Not flammable or combustible.

## 5.2 Suitable extinguishing media

Dry powder

## 5.3 Hazardous combustion products

Hazardous decomposition products formed under fire conditions: Sulphur oxides, sodium oxides

## 5.4 Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.5 Further information

No data available

## Section 6: Accidental Release Measures

### 6.1 Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Keep in suitable, closed containers for disposal.

## Section 7: Handling and Storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage

No metal containers

Hygroscopic. Air and light sensitive.

Do not store near acids

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature 2 - 8 °C

## Section 8: Exposure Controls/Personal Protection

### 8.1 Components with workplace control parameters

No data available

### 8.2 Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Specific engineering controls

Use mechanical exhaust or laboratory fume hood to avoid exposure.

### Section 9: Physical and Chemical Properties

#### Appearance

Form	Solid
Colour	Yellow

#### Safety Data

pH	No data available
Melting point/freezing point	950 °C (1,742 °F)
Boiling point	No data available
Flash point	Not applicable
Flammability (solid, gas)	No data available
Ignition temperature	No data available
Auto-ignition temperature	Self-heating; may catch fire.
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	1.86 g/mL at 25 °C (77 °F)
Water solubility	178 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

### Section 10: Stability and Reactivity

#### 10.1 Chemical stability

Stable under recommended storage conditions

#### 10.2 Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with:

Acids

**10.3 Conditions to avoid**

Avoid moisture, air and light.

**10.4 Materials to avoid**

Oxidizing agents, copper, zinc, acids

**10.5 Hazardous decomposition products**

See section 5

**Section 11: Toxicological Information**

**Acute toxicity**

**Oral**

LD50 Oral - Rat - 208 mg/kg

Remarks: (RTECS)

**Inhalation**

No data available

**Dermal**

Acute toxicity estimate Dermal - 300 mg/kg

(Expert judgment)

**Other information on acute toxicity**

No data available

**Skin corrosion/irritation**

Causes skin burns.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Method: OECD Test Guideline 474

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

Corrosive to the respiratory tract.

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

No data available

**Aspiration hazard**

No data available

**Signs and Symptoms of Exposure**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, cough, shortness of breath, headache, nausea

**Additional Information**

RTECS: WE1905000

**Section 12: Ecological Information**

**12.1 Toxicity**

Toxicity to fish	Flow-through test LC50 - Fish - 0.0027 mg/l - 96 h (OECD Test Guideline 203) The value is given in analogy to the following substances: Disodium sulphide nonahydrate
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 2.1 mg/l - 48 h Remarks: (ECOTOX Database)
Toxicity to algae	Growth inhibition ErC50 - Chlorella pyrenoidosa - 75 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to fish (Chronic toxicity)	Flow-through test NOEC - Lepomis macrochirus (Bluegill sunfish) - 0.0092 mg/l - 28 d (ECHA) The value is given in analogy to the following substances: Disodium sulphide nonahydrate

**12.2 Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

No data available

### Section 13: Disposal Considerations

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

### Section 14: Transport Information

#### IATA

UN number: UN1385 Class: 4.2 Packing group: II  
Proper shipping name: Sodium sulphide, anhydrous

### Section 15: Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

### Section 16: Other Information

#### Further information

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for his or her particular purpose(s).

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