

SAFETY DATA SHEET

Preparation Date: 02/19/2015

Revision date 10/24/2019

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: S1465
Product Name: SODIUM SULFIDE, NONAHYDRATE, CRYSTAL, REAGENT, ACS

Other means of identification

Synonyms: Sodium monosulfide, nonahydrate; Sodium sulphide, nonahydrate
 Sulfure de sodium (French)
CAS #: 1313-84-4
RTECS # WE1925000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Specific target organ toxicity (single exposure)	Category 3
Corrosive to metals	Category 1

Label elements

Danger

Hazard statements

Toxic if swallowed
 Toxic in contact with skin

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Causes severe skin burns and eye damage
May cause respiratory irritation
May be corrosive to metals



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Contact with acids liberates toxic gas

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep only in original container

Precautionary Statements - Response

Specific treatment (see .? on this label)

Immediately call a POISON CENTER or physician

Specific treatment (see .? on this label)

In case of fire: Use dry chemical.

Absorb spillage to prevent material damage

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 physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water

Wash contaminated clothing before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.

Call a POISON CENTER or physician if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or physician

Rinse mouth

Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Store in corrosive resistant/ .? container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Sodium Sulfide, Nonahydrate	1313-84-4	100

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.
- Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or poison control center immediately. Toxic in contact with skin.
- Eye Contact:** Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. Toxic if swallowed.

Most important symptoms and effects, both acute and delayed

- Symptoms** Severe skin and eye irritation or burns
Irritating to respiratory system

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Foam.

Unsuitable Extinguishing Media: Water. CO2.

Specific hazards arising from the chemical

Hazardous combustion products No information available.

Specific hazards No information available.

Special Protective Actions for Firefighters

Specific Methods:	No information available
Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not get water inside containers. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors/dust. Never add water to this product. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Deliquescent. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Protect from light. Sensitive to light. Store in light-resistant containers. May corrode metallic surfaces. Do not store in uncoated metallic containers. Store in a segregated and approved area.

Incompatible Materials:

Acids
Metals
Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Sodium Sulfide, Nonahydrate	1313-84-4	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Sodium Sulfide, Nonahydrate	1313-84-4	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Sodium Sulfide, Nonahydrate	1313-84-4	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Face-shield.

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Wear respirator with dust filter.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Solid

Appearance:

Crystals.

Color:

Yellow.

Odor:

Odor of hydrogen sulfide. Rotten-egg like.

Taste

No information available.

Formula

Na₂S•9H₂O

Molecular/Formula weight (g/mole):

240.18

Flammability (solid, gas)

no data available

Flashpoint (°C/°F):

No information available

Flash Point Tested according to:

Not available

Autoignition Temperature (°C/°F):

No information available

Lower Explosion Limit (%):

No information available

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Upper Explosion Limit (%):
No information available

Melting point/range(°C/°F):
50 °C/122 °F

Decomposition temperature(°C/°F):
No information available

Boiling point/range(°C/°F):
No information available

Bulk density:
No information available

Density (g/cm³):
No information available

Specific gravity:
1.427

pH
No information available

Vapor pressure @ 20°C (kPa):
No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Easily soluble in cold water
Insoluble in diethyl ether
Solubility in Water: 1800 g/L @ 25 °C
Slightly soluble in alcohol

10. STABILITY AND REACTIVITY

Reactivity

Reactive with acids
Reactive with metals
Reactive with oxidizing agents
Contact with acids liberates very toxic gas

Chemical stability

Stability: Sensitive to light. Exposure to light accelerates decomposition. Stable at normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Incompatible materials. Exposure to light. Exposure to moisture.

Incompatible Materials: Acids
Metals
Oxidizing agents

Hazardous decomposition products: Hydrogen Sulfide. Sodium oxides.

Other Information

Corrosivity: Corrodes on contact with metals

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Ingestion. Inhalation. Skin.

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Acute Toxicity

Component Information

Sodium Sulfide, Nonahydrate	
CAS No	1313-84-4

LD50/oral/rat = No information available

LD50/oral/mouse = No information available

LD50/dermal/rabbit = No information available

LD50/dermal/rat = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 208 mg/kg LD50 oral Rat (for anhydrous form CAS no. 1313-82-2)

Product Information

LD50/oral/rat =

Value - Acute Toxicity = No information available

LD50/oral/mouse =

Value - Acute Tox = No information available

LD50/dermal/rabbit

Value - Acute Toxicity = No information available

LD50/dermal/rat

VALUE - Acute Tox = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Toxic in contact with skin. Contact causes severe skin irritation and possible burns.

Eye Contact: Severe eye irritation. Causes eye burns.

Inhalation Irritating to respiratory system.

Ingestion Toxic if swallowed.

Ingestion: Ingestion of Sodium sulfide may result in decomposition to hydrogen sulfide in the stomach with subsequent systemic poisoning.

Aspiration hazard No information available.

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

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Sodium Sulfide, Nonahydrate	1313-84-4	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure respiratory system.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Sulfide, Nonahydrate	1313-84-4	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1849
Proper Shipping Name: Sodium sulfide, hydrated
Hazard Class 8
Subsidiary Class No information available
Packing group: II
Emergency Response Guide Number 153
Marine Pollutant No data available
DOT RQ (lbs): No information available
Special Provisions IB8, IP2, IP4, T3, TP33
Symbol(s): No information available
Description: UN1849, Sodium sulfide, hydrated, 8, II

TDG (Canada)

UN-No: UN1849
Proper Shipping Name: Sodium sulfide, hydrated
Hazard Class 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No Information available
Description: UN1849, Sodium sulfide, hydrated, 8, II

ADR

UN Number UN1849
Proper Shipping Name: Sodium sulphide, hydrated
Transport hazard class(es) 8
Packing group II
Subsidiary Risk: No information available
Special Provisions 523
Description: UN1849, Sodium sulphide, hydrated, 8, II

IMDG

UN-No: UN1849
Proper Shipping Name: Sodium sulfide, hydrated
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: II
Marine Pollutant No information available
EMS: F-A
Description UN1849, Sodium sulphide, hydrated, 8, II

RID

UN Number UN1849
Proper Shipping Name: Sodium sulphide, hydrated
Transport hazard class(es) 8
Subsidiary Risk: No information available

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Packing group II
Special Provisions 523
Description: UN1849, Sodium sulphide, hydrated, 8, II

ICAO (air)

UN-No: UN1849
Proper Shipping Name: Sodium sulphide, hydrated
Hazard Class 8
Subsidiary Risk: No information available
Packing Group: II
Description: UN1849, Sodium sulphide, hydrated, 8, II

IATA

UN Number UN1849
Proper Shipping Name: Sodium sulphide, hydrated
Transport hazard class(es) 8
Subsidiary Risk: No information available
Packing group II
Precautionary Statements - Response 8L
Special Provisions No information available
Description: UN1849, Sodium sulphide, hydrated, 8, II

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Sodium Sulfide, Nonahydrate	1313-84-4	Not listed. It is exempt from listing on the TSCA 8(b)Inventory since it is a hydrate. However, the anhydrous form (CAS number 1313-82-2) is listed as ACTIVE on the TSCA 8(b) Inventory	Not present	Present	Not present	Not listed	Present	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Sulfide, Nonahydrate	1313-84-4	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Sodium Sulfide, Nonahydrate	1313-84-4	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sodium Sulfide, Nonahydrate	1313-84-4	Not Applicable	Not Applicable

Canada**WHMIS 2015 - GHS Classifications**

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Canada Hazardous Products Regulation This product has not been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Sodium Sulfide, Nonahydrate	1313-84-4	Not Listed	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Sodium Sulfide, Nonahydrate	1313-84-4	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Sulfide, Nonahydrate	1313-84-4	Not listed

EU Classification**EU GHS - SV - CLP 1272/2008**

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Sodium Sulfide, Nonahydrate	1313-84-4	Not information

EU - CLP (1272/2008)**R-phrases(s)**

R22 - Harmful if swallowed
R24 - Toxic in contact with skin
R31 - Contact with acids liberates toxic gas
R34 - Causes burns
R50 - Very toxic to aquatic organisms

S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36 - Wear suitable protective clothing

S37 - Wear suitable gloves

S39 - Wear eye/face protection

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Sodium Sulfide, Nonahydrate	1313-84-4		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

C - Corrosive

T - Toxic

N - Dangerous for the environment

16. OTHER INFORMATION

Preparation Date: 02/19/2015
Revision date 10/24/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet