

Material Safety Data Sheet

Sodium hydrosulfide hydrate

Section 1 - Chemical Product

MSDS Name: Sodium hydrosulfide hydrate

Catalog Numbers: AC296200000, AC296200010, AC296200025, AC296200250

Synonyms: Sodium bisulfide hydrate.

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
207683-19-0	Sodium hydrosulfide hydrate	100	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow flakes. Flash Point: 90 deg C.

Danger! Toxic if swallowed, inhaled or absorbed through the skin. Combustible solid. Causes burns by all exposure routes. Contact with acids liberates toxic gas. Hygroscopic (absorbs moisture from the air).

Target Organs: Respiratory system, gastrointestinal system, eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns. Toxic in contact with skin.

Ingestion: Causes gastrointestinal tract burns. Toxic if swallowed.

Inhalation: Causes chemical burns to the respiratory tract. Toxic if inhaled.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. Get medical aid immediately. Call a poison control center.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. 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.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Will burn if involved in a fire. Combustible solid. Material is sensitive to temperature rises. Above a given "control temperature" they decompose violently and catch fire.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide.

Flash Point: 90 deg C (194.00 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 1

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal

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protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Keep away from acids. Do not store in metal containers. Keep containers tightly closed. Store protected from moisture. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium hydrosulfide hydrate	none listed	none listed	none listed
Sodium sulfide	none listed	none listed	none listed

OSHA Vacated PELs: Sodium hydrosulfide hydrate: No OSHA Vacated PELs are listed for this chemical. Sodium sulfide: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

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Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Flakes

Appearance: yellow

Odor: stench

pH: 11 (10g/L aq.sol.)

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate:Not applicable.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point:55 deg C

Decomposition Temperature:Not available.

Solubility: 620 g/L (20 癩)

Specific Gravity/Density:1.79

Molecular Formula: $\text{HNaS} \cdot x\text{H}_2\text{O}$

Molecular Weight:56.06

Section 10 - Stability and Reactivity

Chemical Stability: Hygroscopic: absorbs moisture or water from the air.

Conditions to Avoid: Incompatible materials, ignition sources, dust generation, temperatures above 50 癩 (122 癩), exposure to moist air or water.

Incompatibilities with Other Materials: Metals, strong oxidizing agents, acids.

Hazardous Decomposition Products: Oxides of sulfur, hydrogen sulfide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 207683-19-0 unlisted.

CAS# 16721-80-5: WE1900000

LD50/LC50:

Not available.

Not available.

Carcinogenicity:

CAS# 207683-19-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 16721-80-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: No information available.

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	SODIUM HYDROSULFIDE	SODIUM HYDROSULFIDE
Hazard Class:	8	8
UN Number:	UN2949	UN2949
Packing Group:	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 207683-19-0 is not listed on the TSCA inventory. It is for research and development use only.

CAS# 16721-80-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 16721-80-5: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 16721-80-5: immediate, delayed, reactive.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

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This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

CAS# 16721-80-5 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 207683-19-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 16721-80-5 can be found on the following state right to know lists:

California, New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T

Risk Phrases:

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 31 Contact with acids liberates toxic gas.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 50A Do not mix with acids.

WGK (Water Danger/Protection)

CAS# 207683-19-0: No information available.

CAS# 16721-80-5: 2

Canada - DSL/NDSL

CAS# 16721-80-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E, D1B.

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This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 16721-80-5 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/27/1998

Revision #11 Date: 11/06/2007

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.