



SIGMA-ALDRICH

Material Safety Data Sheet

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Section 1 - Product and Company Information

Product Name Sodium hydride, 60% dispersion in mineral oil
Product Number 452912
Brand Aldrich Chemical
Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Emergency Phone: 314-776-6555
Fax: 800-325-5052

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
SODIUM HYDRIDE, 55 - 65% DISPERSION IN MINERAL OIL	None	No		
Ingredient Name	CAS #	Percent		SARA 313
SODIUM HYDRIDE	7646-69-7	>= 55.000 % <= 65.000 %		
MINERAL OIL	8012-95-1	>= 35.000 % <= 45.000 %		

Formula NaH
Synonyms

Section 3 - Hazards Identification

Emergency Overview
Flammable (USA) Highly Flammable (EU). Corrosive
Contact with water liberates extremely flammable gases. Causes severe burns.

HMS Rating
Health: 3 Flammability: 2 Reactivity: 2 Special Hazard(s) : Water reactive

NFPA Rating
Health: 3 Flammability: 2 Reactivity: 2 Special Hazard(s) : Water reactive

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Flammable Hazards: Yes

Explosion Hazards
Vapor may travel considerable distance to source of ignition and flash back
Container explosion may occur under fire conditions
Material readily reacts with water generating flammable and/or explosive hydrogen gas

Explosion Data
Dust Potential
This material, like most materials in powder form, is capable of creating a dust explosion.

Conditions of Flammability
Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air.

Autoignition Temp: N/A **Flammability:** Yes

Extinguishing Media
Suitable
Use approved class D extinguishers or smother with dry sand, dry ground limestone, or dry clay.
Do not use water. Do not use carbon dioxide extinguisher on this material. Do not use halocarbon extinguishers.

Firefighting Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill
Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

Procedure(s) of Personal Precaution(s)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
User Exposure
Do not breathe dust. Do not get in eyes, on skin, on clothing.

Storage
Suitable
Keep tightly closed. Keep away from heat, sparks, and open flame. Handle and store under nitrogen.
Incompatible Materials
Do not allow contact with water.

Special Requirements
Handle and store under inert gas.

Section 8 - Exposure Controls / PPE

Engineering Controls

Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

Personal Protective Equipment

Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.

Hand

Compatible chemical-resistant gloves.

Eye

Chemical safety goggles.

Other

Faceshield (8-inch minimum).

General Hygiene Measures

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Exposure Limits

Source

ACGIH

MINERAL OIL

Type

TWA

Value

5 mg/m³

10 mg/m³ Z/A,
TWA-MIST

0.2 mg/m³

Remarks: TWA-MIST MINERAL OIL

Remarks: MINERAL OIL

ACGIH

MINERAL OIL

0.2 mg/m³

TWA

Remarks: STEL - MIST MINERAL OIL

Remarks: inhalable fraction ACGIH/LIS, P MINERAL OIL

Section 9 - Physical/Chemical Properties

Appearance

Physical State

Solid

Color

Slightly grey

Form

Powder

Molecular Weight:

24.00 AMU

pH

N/A

BP/BP Range

N/A

MP/MP Range

N/A

Freezing Point

N/A

Vapor Pressure

N/A

Vapor Density

N/A

Saturated Vapor Conc.

52 g/cm³

Bulk Density

N/A

Odor Threshold

N/A

Volatiles%

N/A

VOC Content

N/A

Water Content

N/A

Solvent Content

N/A

Evaporation Rate

N/A

Viscosity

N/A

Partition Coefficient
N/A

Decomposition Temp.
N/A

Flash Point °F
N/A

Flash Point °C
N/A

Explosion Limits
N/A

Flammability
N/A

Autoignition Temp
N/A

Solubility
N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability

Conditions to Avoid

Do not allow water to enter container because of violent reaction.

Materials to Avoid

Alcohols, Carbon dioxide.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide, Hydrogen gas.

Hazardous Decomposition Products Formed Upon Contact with Water

Hydrogen gas.

Hazardous Polymerization

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

Causes burns.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

Causes severe burns.

Inhalation

May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasms, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. If swallowed, this material may cause mild to severe burns to the mouth, throat and digestive tract, difficulty in swallowing, nausea and vomiting, followed by diarrhea and respiratory distress.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Sodium hydride
UN#: 1427
Class: 4.3
Packing Group: Packing Group I
Hazard Label: Dangerous when wet.
PIH: Not PIH

IATA

Proper Shipping Name: Sodium hydride
IATA UN Number: 1427
Hazard Class: 4.3
Packing Group: I
Not Allowed - Aircraft: Cargo aircraft only. Not permitted on passenger aircraft.

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: F Xi
Indication of Danger
Highly Flammable, Irritant.
Risk Statements R: 15 36
Contact with water liberates extremely flammable gases. Irritating to eyes.
Safety Statements S: 26 43
in case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of fire, use dry powder. Never use water.

US Classification and Label Text

Indication of Danger
Flammable (USA) Highly Flammable (EU), Corrosive.
Risk Statements
Contact with water liberates extremely flammable gases. Causes severe burns.
Safety Statements
Keep container tightly closed and dry. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of fire, use dry powder. Never use water. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

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Sigma-Aldrich Corporation
www.sigma-aldrich.com

Page 5

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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Page 6