


# SODIUM HYDRIDE

## PRODUCT IDENTIFICATION

CAS NO.	7646-69-7	
EINECS NO.	231-587-3	
FORMULA	NaH	
MOL WT.	23.99	
H.S. CODE	2850.00	
TOXICITY		
SYNONYMS	NaH; Sodium Monohydride	
DESCRIPTION		
CLASSIFICATION		

## PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	silver gray particle
MELTING POINT	300 C (slowly decomposes at 300 C, completely decompose at 800 C)
BOILING POINT	
SPECIFIC GRAVITY	1.2
SOLUBILITY IN WATER	Reacts violently
pH	
VAPOR DENSITY	8.2
AUTOIGNITION	
NFPA RATINGS	Health: 1; Flammability: 1; Reactivity: 2
REFRACTIVE INDEX	
FLASH POINT	
STABILITY	Not available. Avoid exposure to air & water (Dangerous when wet)

## GENERAL DESCRIPTION & APPLICATIONS

Sodium Hydride is a silver gray highly flammable and corrosive particle. It is a strong base; dangerous when wet. It reacts violently with water forming flammable/explosive gas (hydrogen). Sodium hydride is sold in commerce as a 60% w/w dispersion form in mineral oil for safe handling. The solubility in organic solvents is very poor. It is dispersed in an inert solvents. It is not toxic, but it can cause severe eye and skin irritation with possible burns. Sodium Hydride is used in organic and inorganic fine chemical synthesis as a powerful base. it can deprotonate weak Bronsted acids. It is used as a deprotonating agent for C-C and C-N condensations. It is used as an alkylation agent and a polymerization agent in making other chemical compounds. It is used as a drying agent.

Some examples of reducing agents are:

- Diisobutylaluminum Hydride (DIBAL-H)
- Dimethylsulfide Borane
- Ferrous Ion
- Formaldehyde
- Formic Acid
- Hydrazines
- Hydrogen
- Isopropanol
- Lithium Aluminum Hydride
- Low-valent Metal Compounds
- Phenylsilane

- Polymethylhydrosiloxane
- Potassium Ferricyanide
- Silanes
- Sodium Bis(2-methoxyethoxy)Aluminumhydride
- Sodium Hydrosulfite
- Sodium Amalgam
- Sodium And Potassium
- Sodium Borohydride
- Sodium Cyanoborohydride
- Sodium Dithionite
- Sodium Triacetoxyborohydride
- Stannous Ion
- Sulfite Compounds
- Tin Hydrides
- Triphenylphosphine
- Zinc-mercury Amalgam

#### SALES SPECIFICATION (DISPERSION IN OIL)

APPEARANCE	solid/liquid mixture
CONTENT	55 - 65%
WHITE MINERAL OIL	Balance

#### TRANSPORTATION

PACKING	200kgs in drum
HAZARD CLASS	4.3 (Packing Group: I)
UN NO.	1427

#### OTHER INFORMATION

Hazard Symbols: F, Risk Phrases: 15, Safety Phrases: 7/8/24/25/43A