SODIUM HYDRIDE

SDH

CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Powder in oil Gray Kerosene odor Reacts violently with water. Flammable gas is produced.

Evacuate.
Keep people away. Avoid contact with discharged material.
Wear rubber overclothing (including gloves).
Shut off ignition sources and call fire department.
Notify local health and pollution control agencies.

Fire	FLAMMABLE. MAY EXPLODE ON CONTACT WITH WATER. DO NOT USE WATER, FOAM, SODA ACID, DRY CHEMICAL OR CARBON DIOXIDE ON FIRE. Extinguish with powdered limestone, soda ash, or dry graphite.
Exposure	CALL FOR MEDICAL AID. SOLID Will burn skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. DO NOT INDUCE VOMITING.
Water Pollution	Dangerous to aquatic life in high concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse
Stop discharge
Do not add water to undissolved material

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: NaH
2.3 IMO/UN Designation: 4.3/1427
2.4 DOT ID No.: 1427
2.5 CAS Registry No.: 7646-69-7
2.6 NAERG Guide No.: 138
2.7 Standard Industrial Trade Classification: 52495

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Face shield; rubber gloves.
3.2 Symptoms Following Exposure: Moisture of body converts compound to caustic soda, which irritates all tissues.
3.3 Treatment of Exposure: INGESTION: do NOT induce vomiting; neutralize alkali in stomach by drinking dilute vinegar, lemon juice, or orange juice; call a physician. SKIN CONTACT: brush off all particles at once and flood the affected area with water.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
3.6 TLV-Ceiling: Not listed.
3.7 Toxicity by Ingestion: Currently not available
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: None
3.10 Vapor (Gas) Irritant Characteristics: Non-volatile
3.11 Liquid or Solid Characteristics: Severe skin irritant. Causes second-and third-degree burns on short contact and is very injurious to the eyes.
3.12 Odor Threshold: Currently not available
3.13 IDLH Value: Not listed.
3.14 OSHA PEL-TWA: Not listed.
3.15 OSHA PEL-STEL: Not listed.
3.16 OSHA PEL-Ceiling: Not listed.
3.17 EPA AEGL: Not listed

4. FIRE HAZARDS

4.1 Flash Point: Oil is flammable
4.2 Flammable Limits in Air: Not pertinent
4.3 Fire Extinguishing Agents: Powdered limestone and nitrogen-propelled dry powder.
4.4 Fire Extinguishing Agents Not to Be Used: Water, soda acid, dry chemical, carbon dioxide, or foam.
4.5 Special Hazards of Combustion Products: Not pertinent
4.6 Behavior in Fire: Accidental contact with water used to extinguish surrounding fire will result in the release of hydrogen gas and possible explosion
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: Not pertinent
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 2.4 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 1.0 (calc.)
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: Vigorous reaction with release of flammable hydrogen gas. Ignition of hydrogen is infrequent.
5.2 Reactivity with Common Materials: No reaction
5.3 Stability During Transport: Stable below 225°C
5.4 Neutralizing Agents for Acids and Caustics: Neutralize only when accidental reaction with water is complete. Do not neutralize the flammable solid with aqueous solutions. Spent reaction solution may be neutralized with dilute solutions of acetic acid.
5.5 Polymerization: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent

6. WATER POLLUTION

6.1 Aquatic Toxicity: 125 ppm/96 hr/mosquito fish/TL_m/fresh water
180 ppm/23 hr/oysters/lethal/salt water
6.2 Waterfowl Toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): None
6.4 Food Chain Concentration Potential: None
6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

7.1 Grades of Purity: 55% plus 45% mineral oil
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: Must be dry
7.4 Venting: Pressure-vacuum
7.5 IMO Pollution Category: Currently not available
7.6 Ship Type: Currently not available
7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Dangerous When Wet
8.2 49 CFR Class: 4.3
8.3 49 CFR Package Group: I
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	3
Flammability (Red).....	3
Instability (Yellow).....	2
Special (White).....	~~W~~

8.6 EPA Reportable Quantity: Not listed.
8.7 EPA Pollution Category: Not listed.
8.8 RCRA Waste Number: Not listed
8.9 EPA FWPCA List: Not listed

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Solid
9.2 Molecular Weight: Not applicable
9.3 Boiling Point at 1 atm: Very high
9.4 Freezing Point: Not pertinent
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: Currently not available
9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
9.12 Latent Heat of Vaporization: Not pertinent
9.13 Heat of Combustion: Not pertinent
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: Not pertinent
9.16 Heat of Polymerization: Not pertinent
9.17 Heat of Fusion: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	REACTS		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT