

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 12.14.2014**Sodium Hydroxide,4N****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Sodium Hydroxide,4N**Manufacturer/Supplier Article number:** SH6285SS**Recommended uses of the product and restrictions on use:** Laboratory Chemicals**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331  
1-717-632-1291

**Emergency telephone number:****ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

**SECTION 2: Hazards identification****Classification of the substance or mixture:****Corrosive**

Corrosive to metals, category 1

Serious eye damage, category 1

Skin corrosion, category 1A

Eye corr. 1.

Skin Corr.1A.

Metal Corr. 1.

**Signal word:** Danger**Hazard statements:**

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep only in original container.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not breathe dust/fume/gas/mist/vapors/spray.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

Immediately call a POISON CENTER or doctor/physician.

Specific treatment (see supplemental first aid instructions on this label).

Absorb spillage to prevent material damage.

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

Store locked up.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 12.14.2014**Sodium Hydroxide,4N**

Dispose of contents/container.

**Other Non-GHS Classification:** None**SECTION 3: Composition/information on ingredients****Ingredients:**

<b>Ingredients:</b>		
CAS 1310-73-2	Sodium Hydroxide	16 %
CAS 7732-18-5	Deionized Water	84 %
Percentages are by weight		

**SECTION 4: First aid measures****Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

**After skin contact:**

Take off contaminated clothing and shoes immediately. Wash affected area with soap and water. Seek medical attention if irritation, discomfort persist.

**After eye contact:**

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

**Most important symptoms and effects, both acute and delayed:**

Irritation. Nausea. Headache. Shortness of breath.

**Indication of any immediate medical attention and special treatment needed:**

If seeking medical attention, provide SDS document to physician.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

**Unsuitable extinguishing agents:**

Carbon dioxide. Carbon dioxide.

**Special hazards arising from the substance or mixture:**

Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors. Sodium oxides.

**Advice for firefighters:****Protective equipment:**

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 12.14.2014**Sodium Hydroxide,4N**

Use NIOSH-approved respiratory protection/breathing apparatus.

**Additional information (precautions):**

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Transfer to a disposal or recovery container. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

**Methods and material for containment and cleaning up:**

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Collect liquid and dilute with water. Neutralize with dilute acid solutions. Decant water to drain with excess water. Absorb with suitable material. Dispose of remaining solid as normal refuse. Always obey local regulations.

**Reference to other sections:** None**SECTION 7: Handling and storage****Precautions for safe handling:**

Absorb spillage to prevent material damage due to corrosiveness to metal. Avoid contact with skin, eyes and clothing. Wash hands after handling. Do not mix with acids. Follow good hygiene procedures when handling chemical materials. Use only in well ventilated areas.

**Conditions for safe storage, including any incompatibilities:**

Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Store with Corrosives.

**SECTION 8: Exposure controls/personal protection****Control parameters:**

1310-73-2, Sodium Hydroxide, OSHA PEL TWA 2 mg/m<sup>3</sup>.  
1310-73-2, Sodium Hydroxide, ACGIH TLV TWA: 2 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a chemical fume hood.

**Respiratory protection:**

Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable. Use under a chemical fume hood.

**Protection of skin:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 12.14.2014**Sodium Hydroxide,4N**

<b>Eye protection:</b>	Safety glasses with side shields or goggles.
<b>General hygienic measures:</b>	The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b>	Non Explosive
		<b>Explosion limit upper:</b>	Non Explosive
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	14 mmHg at 20°C
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	>1
<b>pH-value:</b>	13.3	<b>Relative density:</b>	Approx. 1
<b>Melting/Freezing point:</b>	Approx. 0°C	<b>Solubilities:</b>	Soluble in Water
<b>Boiling point/Boiling range:</b>	Approx. 100°C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not determined	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Not determined	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	Not determined		

**SECTION 10: Stability and reactivity****Reactivity:**

Solution attacks metals such as aluminum, tin, lead and zinc. Also, generates heat on exposure to acids.  
Aqueous solutions react violently with acids.

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Incompatible materials, excess heat.

**Incompatible materials:**

Acids, organic materials, chlorinated solvents, aluminum, phosphorus, tin/tin oxides, zinc.

**Hazardous decomposition products:**

sodium oxides, hydrogen.

**SECTION 11: Toxicological information**

**Acute Toxicity:** None

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Rabbit: Causes Burns. 1310-73-2.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 12.14.2014**Sodium Hydroxide,4N****Serious eye damage/irritation:**

Rabbit: Corrosive to eyes. 1310-73-2.

**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:****Not listed as a carcinogen.:** 1310-73-2**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:** No additional information.**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:** No additional information.**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:**

Not expected to bio accumulate.

**Mobility in soil:**

-1.87 (water).

**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Neutralize with dilute acid solutions.

**SECTION 14: Transport information****US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

1824

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Sodium hydroxide solution.**Hazard Class:** 8**Packing Group:** II.**Marine Pollutant (if applicable):** No**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Sodium hydroxide solution.**Hazard Class:** 8**Packing Group:** II.**Marine Pollutant (if applicable):** No

**Safety Data Sheet**

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additional information.

**Comments:** None

additional information.

**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

None of the ingredients are listed.

**SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act) :**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

1310-73-2 Sodium Hydroxide 1000 lb.

**Proposition 65 (California):****Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

**Canada****Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

**SECTION 16: Other information**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

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- IMDG International Maritime Code for Dangerous Goods.
- PNEC. Predicted No-Effect Concentration (REACH).
- CFR Code of Federal Regulations (USA)
- SARA Superfund Amendments and Reauthorization Act (USA).
- RCRA. Resource Conservation and Recovery Act (USA).
- TSCA. Toxic Substances Control Act (USA).
- NPRI National Pollutant Release Inventory (Canada).
- DOT US Department of Transportation.
- IATA International Air Transport Association.
- GHS Globally Harmonized System of Classification and Labelling of Chemicals.
- ACGIH American Conference of Governmental Industrial Hygienists
- CAS Chemical Abstracts Service (division of the American Chemical Society).
- NFPA National Fire Protection Association (USA).
- HMIS Hazardous Materials Identification System (USA).
- WHMIS Workplace Hazardous Materials Information System (Canada).
- DNEL Derived No-Effect Level (REACH).