according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.06.2015

Potassium Hydroxide,8.0N

SECTION 1: Identification of the substance/mixture and of the supplier

Product name:

Potassium Hydroxide,8.0N

Manufacturer/Supplier Article number: PH9375SS

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:



Irritant

Acute toxicity (oral, dermal, inhalation), category 4



Corrosive

Skin corrosion, category 1A Corrosive to metals, category 1 Serious eye damage, category 1

Aq. AcTox. 3. Corr. Metals 1. Ac. Oral Tox. 4. Skin corr. 1A. Eye. Damage 1.

Signal word: Danger

Hazard statements:

May be corrosive to metals. Causes severe skin burns and eye damage. Harmful if swallowed. Harmful to aquatic life.

Precautionary statements:

If medical advice is needed have product container or label at hand. Keep out of reach of children. Read label before use. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Keep only in original container. Absorb spillage to prevent material damage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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Immediately call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

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

Rinse mouth.

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. Immediately call a POISON CENTER or doctor/physician.

Wash contaminated clothing before reuse.

Store locked up.

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

Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:				
CAS 1310-58-3	Potassium hydroxide	<51 %		
CAS 7732-18-5	Deionized Water	>49 %		
		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. Provide artificial respiration, if necessary, using a barrier device.

After skin contact:

Seek immediate medical attention. Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes.

After eye contact:

Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush eye gently with water for at least 30 minutes, lifting upper and lower lids. Seek immediate medical attention (ophthalmologist).

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Contact Poison Control or physician immediately.

Most important symptoms and effects, both acute and delayed:

Coughing. Causes severe burns by all exposure routes. May cause severe burns, blindness and/or permanent damage. May cause severe and permanent damage to the digestive tract. May cause severe irritation of the upper respiratory tract, coughing, breathing difficulty, burns, and possible coma, chemical burns to the respiratory tract. Nausea. Headache. Shortness of breath. Upper Respiratory Tract irritation Eye irritation Skin irritation.

Indication of any immediate medical attention and special treatment needed:

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DO NOT use mouth-to-mouth resuscitation without a barrier device to prevent responder from receiving burns. 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:

Do NOT use water.

Special hazards arising from the substance or mixture:

Dissolves in water, releasing heat. Contact with moisture or water may generate sufficient heat to ignite nearby combustible materials. Thermal decomposition can lead to release of irritating gases and vapors. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. If moist, reacts with many common metals to form hydrogen gas.

Advice for firefighters:

Protective equipment:

Wear special protective clothing and positive pressure self-contained breathing apparatus. Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions):

Use spark-proof tools and explosion-proof equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Transfer to a disposal or recovery container. Use spark-proof tools and explosionproof equipment. 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. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent.

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. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air. Collect solids in powder form using vacuum with HEPA filter.

Reference to other sections: None **SECTION 7: Handling and storage**

Precautions for safe handling:

Use in chemical hood only. Avoid contact with skin, eyes and clothing. Wash hands after handling. Avoid dispersal of dust in the air. Absorb spillage to prevent material damage. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid generation of dust or fine particulate.

Conditions for safe storage, including any incompatibilities:

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Store as corrosive. Store in a cool location. 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. Keep container tightly closed. Store with like hazards.

SECTION 8: Exposure controls/personal protection





Control parameters:	1310-58-3 , Potassium hydroxide, C 2.000000 mg/m ³ USA. ACGIH.		
Control parameters.	1310-58-3, Potassium hydroxide, C 2 mg/m ³ USA. ACGIH. 1310-58-3, Potassium hydroxide, C 2 mg/m ³ USA. ACGIH. 1310-58-3, Potassium hydroxide, C 2.000000 mg/m ³ USA. NIOSH.		
Appropriate engineering controls:	Use in chemical hood only. 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 fume hood. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).		
Respiratory protection:	Not required under normal conditions of use. 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.		
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.		
Eye protection:	Safety glasses with side shields or goggles.		
General hygienic measures:	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

Appearance (physical state, color):		•	Not determined Not determined
Odor:	Odorless	Vapor pressure at 20°C:	> 1
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Alkaline	Relative density:	Not determined
Melting/Freezing point:	Approximately 0°C	Solubilities:	Soluble in water.
Boiling point/Boiling range:	Approximately 100°C	Partition coefficient (n- octanol/water):	Not determined

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Potassium Hydroxide,8.0N					
Flash point (closed cup):	INAT AATArminaa	Auto/Self-ignition temperature:	Not determined		
Evaporation rate:	INAT defermined	Decomposition temperature:	Not determined		
Flammability (solid, gaseous):	Not determined	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined		
Density at 20°C:	Not determined				
Specific Gravity:	2.04				

SECTION 10: Stability and reactivity

Reactivity:

Readily absorbs carbon dioxide and moisture from the air and become liquid (deliquesces).

Chemical stability:

No decomposition if used and stored according to specifications.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Incompatible materials. Excessive heat.

Incompatible materials:

Strong acids, acetone, metals such as aluminum, tin, zinc, and chlorinated hydrocarbons.

Hazardous decomposition products:

Oxides of potassium, decomposition by reaction with certain metals releases flammable and explosive hydrogen gas.

SECTION 11: Toxicological information

Acute Toxicity: No additional information. Chronic Toxicity:

Dermal:

Tumorigenic and mutagenic effects have been reported in experimental animals. Experimental data.

Skin corrosion/irritation:

Skin - Rabbit Result : Severe skin irritation - 24 h 1310-58-3.

Serious eye damage/irritation:

Eyes - Rabbit Result: Corrosive to eyes 1310-58-3.

Respiratory or skin sensitization: No additional information. **Carcinogenicity**: No additional information.

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

according to 29CFR1910/1200 and GHS Rev. 3

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Ecotoxicity: No additional information. **Persistence and degradability**:

Readily degradable in the environment.

Bioaccumulative potential: No additional information. **Mobility in soil**: No additional information. **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

1814

Limited Quantity Exception:

Bulk: RQ (if applicable): None Proper shipping Name: Potassium Hydroxide, Solution. Hazard Class: 8 Packing Group: II. Marine Pollutant (if applicable): No additional information. Comments: None None

Non Bulk: RQ (if applicable): None Proper shipping Name: Potassium Hydroxide, Solution. Hazard Class: 8 Packing Group: II. Marine Pollutant (if applicable): No additional information. Comments: None



SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute,Chronic,Pressure,Reactive

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) :

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All ingredients are listed.

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

1310-58-3 Potassium hydroxide 1000 lbs.

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.

NFPA: 3-0-1 HMIS: 3-0-1 GHS Full Text Phrases: None

Abbreviations and Acronyms:

- 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).

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- 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).