

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 12.14.2014

**Sodium Hydroxide,12.0N,**

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

**Product name:** Sodium Hydroxide,12.0N,

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** SH6330-AA

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
1-(800)-255-3924

**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/vapours/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.

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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.  
Dispose of contents/container.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 1310-73-2	Sodium Hydroxide	48 %
CAS 7732-18-5	Deionized Water	52 %
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.

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**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:**

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 eyes, skin, 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/m3.  
1310-73-2, Sodium Hydroxide, ACGIH TLV TWA 2 mg/m3.

**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.

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<b>Respiratory protection:</b>	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.
<b>Protection of skin:</b>	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.
<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>	14mmHg @ 20C
<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.

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**SECTION 11: Toxicological information**

**Acute Toxicity:** None

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Rabbit: Causes Burns. 1310-73-2.

**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

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**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Sodium hydroxide solution.

**Hazard Class:** 8

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Sodium 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):**

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

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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:** 2-0-0**HMIS:** 2-0-0**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).  
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).

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**Hydrochloric Acid Concentrated, ACS Grade**

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

**Product name:** Hydrochloric Acid Concentrated, ACS Grade

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** HA1000-AA

**Recommended uses of the product and restrictions on use:** Laboratory

**Manufacturer Details:**

AquaPhoenix Scientific  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Corrosive**

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



**Irritant**

Specific target organ toxicity following single exposure, category 3

Corr. Metals 1.

Corr. Skin 1B.

Eye Damage 1.

STOT. SE 3.

AcTox Oral. 4.

**Signal word:** Danger

**Hazard statements:**

May be corrosive to metals.  
Causes severe skin burns and eye damage.  
May cause respiratory irritation.  
Harmful if swallowed.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not eat, drink or smoke when using this product.



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Keep only in original container.

Do not get in eyes, on skin, or on clothing.

Wash skin thoroughly after handling.

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.

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

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.

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

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Store in a well ventilated place. Keep container tightly closed.

Store locked up.

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

Dispose of contents and container to an approved waste disposal plant.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients****Ingredients:**

Ingredients:		
CAS 7647-01-0	Hydrochloric Acid, ACS	30-50 %
CAS 7732-18-5	Water	50-70 %
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 attention if irritation or coughing persists. Do not use mouth-to-mouth resuscitation. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**After skin contact:**

Wash affected area with soap and water. Immediately remove contaminated clothing and shoes. Rinse thoroughly with plenty of water for at least 15 minutes. Immediately seek medical attention.

**After eye contact:**

Protect unexposed eye. Flush thoroughly with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Continue rinsing eyes during transport to hospital.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Immediately seek medical attention.

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

Inhalation may cause irritation to nose and upper respiratory tract, ulceration, coughing, chest tightness and shortness of breath. Higher concentrations cause tachypnoea, pulmonary oedema and suffocation. Ingestion may cause corrosion of lips, mouth, esophagus and stomach, dysphagia and vomiting. Pain, eye ulceration,

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conjunctival irritation, cataracts and glaucoma may occur following eye exposure. Erythema and skin irritation, as well as chemical burns to skin and mucous membranes may arise following skin exposure. Potential sequelae following ingestion of hydrochloric acid include perforation, scarring of the esophagus or stomach and stricture formation causing dysphagia or gastric outlet obstruction. Symptoms of burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation, edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. In some cases, RADS may develop. Respiratory symptoms may take up to 36 hours to develop. Material is extremely destructive to tissue of the mucous membranes, upper respiratory tract, eyes, and skin.

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

Provide SDS to Physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:** None

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

Combustion products may include carbon oxides or other toxic vapors. If in contact with metals toxic fumes may be released.

**Advice for firefighters:**

**Protective equipment:**

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Wear respiratory protection.

**Additional information (precautions):**

Thermal decomposition can produce poisoning chlorine. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing. Hydrochloric acid reacts also with many organic materials with liberation of heat.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Ensure that air-handling systems are operational. Do not get in eyes, on skin or on clothing.

**Environmental precautions:**

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

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

Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Soak up with inert absorbent material and dispose of as hazardous waste. Cover spill with suitable absorbing agent. Mix and add water to form slurry. Wear protective eyewear, gloves, and clothing. Refer to Section 8.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Prevent formation of aerosols. Never use hot water and never add water to the acid. Do not allow contact between hydrochloric acid, metal, and organics. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Use only under a chemical fume hood. Wear personal protective equipment. Wash hands after handling. Do not get on skin, clothes or in eyes. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid splashes or spray in enclosed areas.

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

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Store away from incompatible materials. Corrosives area. Provide ventilation for containers. Keep container tightly closed. Containers for hydrochloric acid must be made from corrosion resistant materials: glass, polyethylene, polypropylene, and polyvinyl chloride, carbon steel lined with rubber or ebonite.

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



**Control parameters:**

7647-01-0, Hydrochloric Acid, ACGIH: 2 ppm Ceiling.  
7647-01-0, Hydrochloric Acid, NIOSH: 5 ppm Ceiling; 7 mg/m<sup>3</sup> Ceiling.

**Appropriate engineering controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of handling.

**Respiratory protection:**

Not required under normal conditions of use. 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. When necessary use NIOSH approved breathing equipment.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

**Eye protection:**

Face shield (8-inch minimum). Tightly fitting safety goggles.

**General hygienic measures:**

Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before rewearing wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Non Explosive Non Explosive
<b>Odor:</b>	Alcohol	<b>Vapor pressure at 20°C:</b>	5.7mmHg @ 0C
<b>Odor threshold:</b>	0.3 - 14.9 mg/m <sup>3</sup>	<b>Vapor density:</b>	1.27 (Air=1)
<b>pH-value:</b>	< 1	<b>Relative density:</b>	1.0 - 1.2
<b>Melting/Freezing point:</b>	- 74 C	<b>Solubilities:</b>	Infinite.
<b>Boiling point/Boiling range:</b>	81.5 - 110 C	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not applicable	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	>1.00	<b>Decomposition temperature:</b>	Not determined

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<b>Flammability (solid, gaseous):</b>	Non combustible	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	Not determined		
<b>Hydrochloric Acid</b>	MW is 36.46		

**SECTION 10: Stability and reactivity**

**Reactivity:**

Reacts violently with bases and is corrosive.

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:**

Attacks many metals in the presence of water forming flammable explosive gas (hydrogen). Reacts violently with oxidants forming toxic gas (chlorine).

**Conditions to avoid:**

Incompatible materials.

**Incompatible materials:**

Bases, Amines, Alkali metals, Metals, permanganates (potassium permanganate), Fluorine, Metal acetylides, Hexalithium disilicide. Most metals, reducing agents, strong oxidizing agents.

**Hazardous decomposition products:**

Hydrogen chloride gas. Carbon oxides.

**SECTION 11: Toxicological information**

**Acute Toxicity:**

**Dermal:**

LD50 Rabbit >5010 mg/kg 7647-01-0.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Skin - rabbit Result: Causes burns. 7647-01-0.

Irritation causes burns by all exposure routes.

**Serious eye damage/irritation:**

Eyes - rabbit Result: Corrosive to eyes 7647-01-0.

Irritation causes burns by all exposure routes.

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

**Carcinogenicity:** No additional information.

**Germ cell mutagenicity:**

Mutagenic effects have occurred in lab experimental animals.

Teratogenic effects have been observed in experimental animals.

**Reproductive Toxicity:**

Experiments have shown reproductive toxicity effects on lab animals.

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(Immediate/Delayed) Developmental effects have been observed in lab animals.

**STOT-single and repeated exposure:**

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**Additional toxicological information:** No additional information.

**SECTION 12: Ecological information**

**Ecotoxicity:**

7647-01-0, Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h (Hydrochloric acid).

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

**Bioaccumulative potential:** No additional information.

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

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

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). Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA 1789

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Hydrochloric Acid.

**Hazard Class:** 8

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Hydrochloric Acid.

**Hazard Class:** 8

**Packing Group:** II.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None



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**SECTION 15: Regulatory information**

**United States (USA)**

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

Acute

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

7647-01-0 Hydrochloric acid - Weight: 36.5 - 38% Threshold: 1.0.

**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):**

7647-01-0 Hydrochloric Acid 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:**

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 01.08.2015**Hydrochloric Acid Concentrated, ACS Grade**

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).

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid,25%v/v**

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

**Product name:** Acetic Acid,25%v/v

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** AA2195-100ML

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Corrosive**  
Skin corrosion, category 1A

Skin Corrosion 1A.

**Signal word:** Danger

**Hazard statements:**

Causes severe skin burns and 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.  
Do not eat, drink or smoke when using this product.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash skin thoroughly after handling.  
Immediately call a POISON CENTER or doctor/physician.  
Rinse skin with water/shower.  
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.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Specific treatment (see supplemental first aid instructions on this label).  
Store locked up.  
Store in a well ventilated place. Keep container tightly closed.  
Store in a dry place.  
Store in a closed container.



**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid,25%v/v**

Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

<b>Ingredients:</b>		
CAS 64-19-7	Acetic Acid	26.2 %
CAS 7732-18-5	Deionized Water	73.8 %
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. Give artificial respiration if necessary. If breathing persists give oxygen.

**After skin contact:**

Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists. Flush with water for 15 minutes.

**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 if irritation persists or if concerned.

**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. Notes to Physician: Treat symptomatically.

**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:** None

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

Combustion products may include carbon oxides or other toxic vapors.

**Advice for firefighters:**

**Protective equipment:** None

**Additional information (precautions):**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid,25%v/v**

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. Avoid contact with eyes, skin, and clothing. Remove from all sources of ignition. 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. Transfer to a disposal or recovery container.

**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. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Remove from all sources of ignition. Soak with inert material. Use spark-proof tools and explosion-proof equipment. Always obey local regulations.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Prevent formation of aerosols. 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 splashes or spray in enclosed areas. Wash hands after handling. Avoid contact with eyes, skin, and clothing.

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

Store in a cool location. Protect from freezing and physical damage. 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. Keep from freezing.

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



**Control parameters:**

64-19-7, Acetic Acid, ACGIH TLV: 25mg/m<sup>3</sup>, OSHA PEL: 25mg/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 mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

**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.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid, 25%v/v**

**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**

<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b>	0 Vol %
		<b>Explosion limit upper:</b>	0 Vol %
<b>Odor:</b>	Strong vinegar	<b>Vapor pressure at 20°C:</b>	11 @ 20C
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	0.62 (Air = 1)
<b>pH-value:</b>	<1	<b>Relative density:</b>	1 (Water = 1)
<b>Melting/Freezing point:</b>	0 °C (32 °F)	<b>Solubilities:</b>	Soluble in water.
<b>Boiling point/Boiling range:</b>	100°C (212°F)	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	Not applicable	<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 applicable	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: 0.952 mPas at 20 °C (68 °F)
<b>Density at 20°C:</b>	1 g/cm <sup>3</sup> (8.345 lbs/gal) at 20 °C (68 °F)		

**SECTION 10: Stability and reactivity**

**Reactivity:** None

**Chemical stability:**

No decomposition if used and stored according to specifications.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Store away from oxidizing agents, strong acids or bases. Keep from freezing.

**Incompatible materials:**

Strong acids. Strong bases. Perchloric acid. Nitric acid. Chromic acid. Sodium peroxide. Metals.

**Hazardous decomposition products:**

Carbon oxides (CO, CO<sub>2</sub>).

**SECTION 11: Toxicological information**

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Classified as a skin corrosion. Section 2.

**Serious eye damage/irritation:**

Can cause serious eye damage due to corrosive properties. Section 2.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid, 25%v/v**

**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**

**Ecotoxicity:**

Ecotoxicity, Acetic Acid has high biochemical oxygen demand, and a potential to cause oxygen depletion in aquatic systems.

**Persistence and degradability:**

Readily degradable in the environment.

**Bioaccumulative potential:**

Acetic acid has a low potential to bio concentrate.

**Mobility in soil:**

Aqueous solution has high mobility in soil.

**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 5% Sodium Hydroxide or Sodium Carbonate solutions, and then pour into the drain while flushing with a large amount of water if allowed.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

UN2790

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Acetic Acid Solution.

**Hazard Class:** 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Acetic Acid Solution.

**Hazard Class:** 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 10.24.2014

**Acetic Acid, 25%v/v**



**SECTION 15: Regulatory information**

**United States (USA)**

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

Acute

**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):**

64-19-7 Acetic Acid 1,000 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:** 3-0-0

**HMIS:** 3-0-0

**GHS Full Text Phrases:** None

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date** : 10.24.2014

**Acetic Acid, 25%v/v**

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.  
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).  
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.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 11.05.2014

**Ammonium Hydroxide 20%**

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

**Product name:** Ammonium Hydroxide 20%

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** KEMAH1040-100ML

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

AquaPhoenix Scientific Inc.  
9 Barnhart Drive, Hanover PA 17331  
(717) 632-1291

**Emergency telephone number:**

Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Environmentally Damaging**

Acute hazards to the aquatic environment, category 1



**Corrosive**

Serious eye damage, category 1

Acute toxicity (oral, dermal, inhalation), category 1

Eye Damage. 1.

Aquatic AcTox. 1.

AcTox Oral. 4.

Skin Corr. 1.

**Signal word:** Danger

**Hazard statements:**

Causes severe skin burns and eye damage.

Harmful if swallowed.

Very toxic to aquatic life.

**Precautionary statements:**

Wash thoroughly after handling.

Avoid release to the environment.

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

Do not eat, drink or smoke when using this product.

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

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.

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

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 11.05.2014

**Ammonium Hydroxide 20%**

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.  
 Wash contaminated clothing before reuse.  
 Collect spillage.  
 Store locked up.  
 Dispose of contents and container as instructed in Section 13.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 1336-21-6	Ammonium Hydroxide, ACS	20 %
CAS 7732-18-5	Deionized Water	80 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**After inhalation:**

Seek medical attention immediately.

**After skin contact:**

Seek medical attention immediately.

**After eye contact:**

Continue rinsing eyes during transport to hospital.

**After swallowing:**

Seek medical attention immediately.

**Most important symptoms and effects, both acute and delayed:** None

**Indication of any immediate medical attention and special treatment needed:** None

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:** None

**Unsuitable extinguishing agents:** None

**Special hazards arising from the substance or mixture:** None

**Advice for firefighters:**

**Protective equipment:** None

**Additional information (precautions):** None

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** None

**Environmental precautions:** None

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



**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 11.05.2014

**Ammonium Hydroxide 20%**

Soak up with inert absorbent material.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:** None

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

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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

**Control parameters:** 1336-21-6, Ammonium Hydroxide, TWA 25.000000 ppm USA. ACGIH.  
1336-21-6, Ammonium Hydroxide , TWA 25.000000 ppm 18.000000 mg/m3 USA. NIOSH.

**Appropriate engineering controls:** None

**Respiratory protection:** None

**Protection of skin:** None

**Eye protection:** None

**General hygienic measures:** None

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear colorless liquid	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	115 at 20 C
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	3.38
<b>pH-value:</b>	Alkaline	<b>Relative density:</b>	0.9 g/mL at 25 °C
<b>Melting/Freezing point:</b>	- 72 C	<b>Solubilities:</b>	Material is water soluble.
<b>Boiling point/Boiling range:</b>	36 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:** None

**Chemical stability:** None

**Possible hazardous reactions:** None

**Conditions to avoid:** None

**Incompatible materials:**

Copper, Iron, Zinc.

**Hazardous decomposition products:**

Nitrogen oxides.

**SECTION 11: Toxicological information**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 11.05.2014

**Ammonium Hydroxide 20%**

**Acute Toxicity:** None

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:** No additional information.

**Serious eye damage/irritation:** No additional information.

**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**

**Ecotoxicity:** No additional information.

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

**Bioaccumulative potential:** No additional information.

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

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

2672

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Ammonia solution.

**Hazard Class:** 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Ammonia solution.

**Hazard Class:** 8

**Packing Group:** III.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None



**SECTION 15: Regulatory information**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 11.05.2014

**Ammonium Hydroxide 20%**

**United States (USA)**

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

Acute

**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):**

1336-21-6 Ammonium 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 within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

**NFPA:** 2-0-0

**HMIS:** 2-0-0

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:** None

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

**Sodium Phosphate Monobasic,**

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

**Product name:** Sodium Phosphate Monobasic,

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** SP1020-E

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

Not classified for physical or health hazards according to GHS.  
Hazards Not Otherwise Classified - Combustible Dust.

**Signal word:** Warning

**Hazard statements:** None

**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 7558-80-7	Sodium phosphate monobasic, anhydrous	100 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

**Sodium Phosphate Monobasic,**

**After inhalation:**

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

**After skin contact:**

Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

**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. Seek medical attention if irritation persists or if concerned.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Seek medical attention if irritation, discomfort, or vomiting persists. Never give anything by mouth to an unconscious person.

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

Irritation. Headache. Nausea. Shortness of breath. Not Determined.

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

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:** None

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

Thermal decomposition can lead to release of irritating gases and vapors.

**Advice for firefighters:**

**Protective equipment:**

Wear protective eyewear, gloves, and clothing. Use NIOSH-approved respiratory protection/breathing apparatus. Refer to Section 8.

**Additional information (precautions):**

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Ensure that air-handling systems are operational.

**Environmental precautions:**

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

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

Wear protective eyewear, gloves, and clothing. Sweep up or use vacuum with HEPA filter and place in appropriate container for disposal. For disposal, refer to Section 13. Prevent generation of dust. Refer to Section 8.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

**Sodium Phosphate Monobasic,**

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances.

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

Keep container tightly closed. Store away from incompatible materials. Store with similar hazards.

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



**Control parameters:**

7558-80-7, Sodium phosphate monobasic, anhydrous, OSHA PEL TWA (Total Dust) 15 mg/m<sup>3</sup> (50 mppcf\*).  
7558-80-7, Sodium phosphate monobasic, anhydrous, ACGIH TLV TWA (inhalable particles) 10mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Provide adequate ventilation. Ensure eye wash and safety showers are available.

**Respiratory protection:**

Not required under normal conditions of use. 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. When necessary use NIOSH approved breathing equipment.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

**Eye protection:**

Safety glasses or goggles are appropriate eye protection.

**General hygienic measures:**

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	White solid	<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	4.1 - 4.5: 5% solution	<b>Relative density:</b>	approximately 2.0
<b>Melting/Freezing point:</b>	100°C	<b>Solubilities:</b>	Water soluble
<b>Boiling point/Boiling range:</b>	203.9°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>	Negligible	<b>Decomposition temperature:</b>	437 deg F
<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		

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

<b>Sodium Phosphate Monobasic,</b>
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<b>Specific Gravity:</b>	1103 g/L (20C)
<b>Additional property:</b>	Hygroscopic (absorbs moisture from the air).

<b>SECTION 10: Stability and reactivity</b>
---

**Reactivity:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Incompatible materials. High temperatures. Avoid formation of dust.

**Incompatible materials:**

Strong oxidizers.

**Hazardous decomposition products:**

Carbon monoxide, oxides of phosphorus, carbon dioxide, sodium oxide.

<b>SECTION 11: Toxicological information</b>
--

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:** No additional information.

**Serious eye damage/irritation:** No additional information.

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

**Carcinogenicity:**

**Sodium Phosphate, Monobasic 7558-80-7:** Not listed as a carcinogen (ACGIH, IARC, NTP)

**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.

<b>SECTION 12: Ecological information</b>
---

**Ecotoxicity:** No additional information.

**Persistence and degradability:**

Not Determined.

**Bioaccumulative potential:**

Not Determined.

**Mobility in soil:**

Not Determined.

**Other adverse effects:**

Not Determined.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

**Sodium Phosphate Monobasic,**

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Regulated

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:** None

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:** None

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No 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):**

None of the ingredients are listed.

**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:**



**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 02.09.2015

**Sodium Phosphate Monobasic,**

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:** 2-0-0

**HMIS:** 2-0-0

**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).  
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).

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

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

**Product name:** Sodium Phosphate Dibasic

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** SP1005-J

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**



**Irritant**

Eye irritation, category 2A

Skin irritation, category 3

skin corr./irrit. 3.

Serious EyeDam/Irri. 2.

Hazards Not Otherwise Classified - Combustible Dust.

**Signal word:** Warning

**Hazard statements:**

Causes mild skin irritation.

Causes serious eye irritation.

**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.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

Continue rinsing.

If eye irritation persists get medical advice/attention.

If skin irritation occurs: Get medical advice/attention.

**Other Non-GHS Classification:** None

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 7558-79-4	Sodium Phosphate, Dibasic	100 %
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:**

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

**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. Seek medical attention if irritation persists or if concerned.

**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:**

Use extinguishing media appropriate for surrounding fire. 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:** None

**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. 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.

**Advice for firefighters:**

**Protective equipment:**

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. Use spark-proof tools and explosion-proof equipment.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

**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 explosion-proof 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:**

Minimize dust generation and accumulation. Wash hands after handling. Avoid dispersal of dust in the air. 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. Avoid contact with eyes, skin, and clothing.

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

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:**

7758-79-4, Sodium Phosphate, Dibasic, ACGIH TLV: NA, OSHA PEL: NA.

**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 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).

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

<b>Respiratory protection:</b>	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.
<b>Protection of skin:</b>	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.
<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>		<b>Explosion limit lower:</b>	Not determined
		<b>Explosion limit upper:</b>	Not determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	>240 C	<b>Solubilities:</b>	Soluble.
<b>Boiling point/Boiling range:</b>	Not determined	<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		
<b>Molecular Weight:</b>	141.96		

**SECTION 10: Stability and reactivity**

**Reactivity:** None

**Chemical stability:**

No decomposition if used and stored according to specifications. Hygroscopic.

**Possible hazardous reactions:** None

**Conditions to avoid:**

Store away from oxidizing agents, strong acids or bases. exposure to moist air, water, excess heat.

**Incompatible materials:**

Strong acids. Strong bases.

**Hazardous decomposition products:**

oxides of phosphorus and sodium.

**SECTION 11: Toxicological information**

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:**

Rabbit: Mild irritation - 24 h.

**Serious eye damage/irritation:**

Rabbit: Mild irritation - 24 h.

**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**

**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.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Dangerous Goods

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Dangerous Goods.

**Hazard Class:** None

**Packing Group:** Not Dangerous Goods.

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Dangerous Goods.

**Hazard Class:** None

**Packing Group:** Not Dangerous Goods.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

**Sodium Phosphate Dibasic**

**Marine Pollutant (if applicable):** No  
additional information.

**Comments:** None

**Marine Pollutant (if applicable):** No  
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):**

7558-79-4 Sodium Phosphate, Dibasic 5000.

**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:** 0-0-0

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.01.2015

<b>Sodium Phosphate Dibasic</b>
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**HMIS:** 0-0-0

**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).  
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).



**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.06.2015

**Ammonium Chloride**

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

**Product name:** Ammonium Chloride  
**Manufacturer/Supplier Trade name:**  
**Manufacturer/Supplier Article number:** KEMAC8235-E  
**Recommended uses of the product and restrictions on use:** Laboratory Chemicals

**Manufacturer Details:**  
 AquaPhoenix Scientific  
 9 Barnhart Drive, Hanover, PA 17331  
 (717) 632-1291

**Supplier Details:**  
 AquaPhoenix Scientific Inc.  
 9 Barnhart Drive, Hanover PA 17331  
 (717) 632-1291

**Emergency telephone number:**  
  
 Emergency Telephone No.: 800-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:** Acute Tox. 4 H302,  
 Eye Irrit. 2 H319.

**Signal word:** None

**Hazard statements:** None

**Precautionary statements:**  
 If medical advice is needed have product container or label at hand.  
 Keep out of reach of children.  
 Read label before use.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash skin thoroughly after handling.  
 Rinse mouth.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.  
 Continue rinsing.  
 If eye irritation persists get medical advice/attention.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 12125-02-9	Ammonium Chloride	100 %

Percentages are by weight

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

**Effective date :** 01.06.2015

**Ammonium Chloride**

**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. Give artificial respiration if necessary. Get medical assistance if cough or other symptoms appear.

**After skin contact:**

Wash affected area with soap and water. Seek medical advice if discomfort or irritation persists.

**After eye contact:**

Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Continue rinsing eyes for an additional 15 minutes. Immediately get medical assistance.

**After swallowing:**

Rinse mouth thoroughly. Do not induce vomiting. Dilute mouth with sips of water or milk after rinsing. Seek medical attention immediately.

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

Shortness of breath. Irritation. Nausea. Headache.

**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:**

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:** None

**Special hazards arising from the substance or mixture:** None

**Advice for firefighters:**

**Protective equipment:**

Wear protective eyewear, gloves, and clothing.

**Additional information (precautions):**

Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. 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. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. Use personal protective equipment. Avoid contact with eyes, skin, and clothing.

**Environmental precautions:** None

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

If necessary use trained response staff or contractor. Absorb with suitable material. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Wear protective eyewear, gloves, and clothing. Always obey local regulations. Refer to Section 8.

**Safety Data Sheet**  
according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.06.2015

**Ammonium Chloride**

Reference to other sections: None

**SECTION 7: Handling and storage****Precautions for safe handling:**

Wash hands after handling. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

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

Store with like hazards. Protect from freezing and physical damage.

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

12125-02-9, Ammonium Chloride , ACGIH TLV: 10mg/m<sup>3</sup>.  
, , OSHA PEL TWA (Total Dust) 15 mg/m<sup>3</sup> (50 mppcf\*).  
, , ACGIH TLV TWA (inhalable particles) 10 mg/m<sup>3</sup>.

**Appropriate engineering controls:**

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Normal ventilation is adequate.

**Respiratory protection:**

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are refer to Section 6.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Wear protective clothing.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Wash hands and exposed skin with soap and plenty of water. Perform routine housekeeping. Before wearing again wash contaminated clothing.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	White solid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Non Explosive Non Explosive
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not applicable
<b>Odor threshold:</b>	Not applicable	<b>Vapor density:</b>	Not applicable
<b>pH-value:</b>	5.0 - 5.5 (1 - 10%) aqueous solution	<b>Relative density:</b>	Not available
<b>Melting/Freezing point:</b>	Approx 338°C	<b>Solubilities:</b>	Approx 29.7g/100 g water at 0°C
<b>Boiling point/Boiling range:</b>	Approx 520°C	<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Flash point (closed cup):</b>	Not applicable	<b>Auto/Self-ignition temperature:</b>	Not applicable
<b>Evaporation rate:</b>	Not applicable	<b>Decomposition temperature:</b>	Not available
<b>Flammability (solid, gaseous):</b>	Not applicable	<b>Viscosity:</b>	a. Kinematic: Not applicable b. Dynamic: Not applicable
<b>Density at 20°C:</b>	Not available		

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**Effective date :** 01.06.2015

**Ammonium Chloride**

**SECTION 10: Stability and reactivity**

**Reactivity:**

None under normal processing.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

Reacts explosively with potassium chlorate or bromine trifluoride. Reacts violently with bromide pentafluoride, ammonium compounds, nitrates, and iodine heptafluoride.

**Conditions to avoid:**

Incompatible Materials.

**Incompatible materials:**

Strong acids. Strong bases. Silver salts. potassium chlorate. bromine trifluoride. bromide pentafluoride. ammonium compounds. nitrates. iodine heptafluoride.

**Hazardous decomposition products:**

Ammonia. Hydrogen chloride.

**SECTION 11: Toxicological information**

**Acute Toxicity:** No additional information.

**Chronic Toxicity:** No additional information.

**Skin corrosion/irritation:** No additional information.

**Serious eye damage/irritation:** No additional information.

**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**

**Ecotoxicity:** No additional information.

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

**Bioaccumulative potential:** No additional information.

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

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Dilute with water and flush to sewer. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information**

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<b>Ammonium Chloride</b>
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**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA None

**Limited Quantity Exception:** None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** None

**Hazard Class:** None

**Packing Group:** None

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** None

**Hazard Class:** None

**Packing Group:** None

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

<b>SECTION 15: Regulatory information</b>
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**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):**

None of the ingredients are listed.

**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.

<b>SECTION 16: Other information</b>
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<b>Ammonium Chloride</b>
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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:** 2-0-0

**HMIS:** 2-0-0

**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).  
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).

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**Effective date :** 10.24.2014

**Sodium Acetate, Trihydrate, AC**

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

**Product name:** Sodium Acetate, Trihydrate, AC

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** SA1100-E

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc.  
9 Barnhart Drive  
Hanover, PA 17331  
1-717-632-1291

**Supplier Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Emergency telephone number:**

**ChemTel: (24-hour) (US and Canada)**  
1-(800)-255-3924

**SECTION 2: Hazards identification**

**Classification of the substance or mixture:**

Not classified for physical or health hazards under GHS.

**Signal word:** Warning

**Hazard statements:** None

**Precautionary statements:**

If medical advice is needed have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Do not eat, drink or smoke when using this product.

**Other Non-GHS Classification:** None

**SECTION 3: Composition/information on ingredients**

**Ingredients:**

Ingredients:		
CAS 6131-90-4	Sodium acetate trihydrate	>99 %
Percentages are by weight		

**SECTION 4: First aid measures**

**Description of first aid measures**

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**Sodium Acetate, Trihydrate, AC**

**After inhalation:**

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

**After skin contact:**

Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists.

**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. Seek medical attention if irritation persists or if concerned.

**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. Never give anything by mouth to an unconscious person.

**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. Physician should treat symptomatically.

**SECTION 5: Firefighting measures**

**Extinguishing media**

**Suitable extinguishing agents:**

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

**Unsuitable extinguishing agents:** None

**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.

**Advice for firefighters:**

**Protective equipment:**

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. Use spark-proof tools and explosion-proof equipment. 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. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

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

Keep in suitable closed containers for disposal. Wear protective eyewear, gloves, and clothing. Always obey local regulations. Refer to Section 8. Dust deposits should not be allowed to accumulate on surfaces, as these



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**Sodium Acetate, Trihydrate, AC**

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. Evacuate personnel to safe areas.

**Reference to other sections:** None

**SECTION 7: Handling and storage**

**Precautions for safe handling:**

Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

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

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

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



**Control parameters:**

No applicable occupational exposure limits.

**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. 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). Use under a fume hood.

**Respiratory protection:**

Not required under normal conditions of use. 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. When necessary use NIOSH approved breathing equipment.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

**Eye protection:**

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

**General hygienic measures:**

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

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**Sodium Acetate, Trihydrate, AC**

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Crystalline powder, white	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Not determined Not determined
<b>Odor:</b>	Not determined	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	8.5 - 10 at 408 g/l at 25 °C (77 °F)	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	Not determined	<b>Solubilities:</b>	None
<b>Boiling point/Boiling range:</b>	Not determined	<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		
<b>Water solubility</b>	408 g/l at 20 °C (68 °F) - completely soluble		
<b>Bulk density</b>	800 kg/m <sup>3</sup>		

**SECTION 10: Stability and reactivity**

**Reactivity:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Incompatible Materials.

**Incompatible materials:**

Strong acids. Strong bases. Oxidizing agents.

**Hazardous decomposition products:** None

**SECTION 11: Toxicological information**

**Acute Toxicity:** None**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:** No additional information.**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:****IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a

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carcinogen or potential carcinogen by OSHA.

**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:** No additional information.

**Bioaccumulative potential:** No additional information.

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

**Other adverse effects:** No additional information.

**SECTION 13: Disposal considerations**

**Waste disposal recommendations:**

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

**SECTION 14: Transport information**

**US DOT**

**UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Regulated.

**Limited Quantity Exception:**

None

**Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:** None

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**Non Bulk:**

**RQ (if applicable):** None

**Proper shipping Name:** Not Regulated.

**Hazard Class:** None

**Packing Group:** Not Regulated.

**Marine Pollutant (if applicable):** No additional information.

**Comments:** None

**SECTION 15: Regulatory information**

**United States (USA)**

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

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**Sodium Acetate, Trihydrate, AC**

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):**

None of the ingredients are listed.

**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:** 0-0-0

**HMIS:** 0-0-0

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.

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).

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HMIS Hazardous Materials Identification System (USA).  
WHMIS Workplace Hazardous Materials Information System (Canada).  
DNEL Derived No-Effect Level (REACH).  
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.