

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 10.24.2014**Ammonium Hydroxide, 0.1M****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Ammonium Hydroxide, 0.1M**Manufacturer/Supplier Article number:** S25843**Recommended uses of the product and restrictions on use:****Manufacturer Details:**

AquaPhoenix Scientific
860 Gitts Run Road,
Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
800 955-1177

Emergency telephone number:

Emergency Telephone No.: 800-255-3924

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

Serious eye damage, category 1
Skin irritation, category 2
Skin corrosion or irritation (Category 2).
Serious eye damage or irritation (Category 1).

Signal word: Danger**Hazard statements:**

Causes skin irritation.
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.
Do not eat, drink or smoke when using this product.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
Take off contaminated clothing and wash before reuse.
IF ON SKIN: Wash with soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.
Continue rinsing.
If skin irritation occurs: Get medical advice/attention.

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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	0.59 %
CAS 7732-18-5	Deionized Water	99.41 %
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 is difficult, give oxygen.

After skin contact:

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

After eye contact:

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

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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 skin, eyes and clothing. 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. Ventilate area of spill. Cover spill.....drain with excess water. Dispose of remaining....

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. Empty containers may be hazardous because....

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Store below 25C. 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. Protect from freezing and physical damage.

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

1336-21-6, Ammonium Hydroxide, ACGIH TLV: 17 mg/m³, OSHA PEL: 35mg/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 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. Local/general exhaust is recommended, if the TLV is exceeded.

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Protection of skin:	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Eye protection:	Safety glasses with side shields or goggles.
General hygienic measures:	The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear, colorless liquid	Explosion limit lower: Explosion limit upper:	0 Vol % 0 Vol %
Odor:	Odorless	Vapor pressure at 20°C:	2.3 kPa (at 20°C) or 23 hPa (17 mmHg) at 20°C (68°F)
Odor threshold:	Not determined	Vapor density:	0.62 (Air = 1)
pH-value:	7 [Neutral] (1% soln/water)	Relative density:	1 (Water = 1)
Melting/Freezing point:	0 °C (32 °F)	Solubilities:	Infinite solubility.
Boiling point/Boiling range:	100°C (212°F)	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	Not applicable	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Not applicable	Viscosity:	a. Kinematic: Not determined b. Dynamic: 0.952 mPas at 20°C (68°F)
Density at 20°C:	1 g/cm ³ (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, and excess heat.

Incompatible materials:

Strong oxidizers, strong acids, strong bases, gold, mercury, halogens, silver, and calcium.

Hazardous decomposition products:Carbon oxides (CO, CO₂).**SECTION 11: Toxicological information****Acute Toxicity:** No additional information.**Chronic Toxicity:** No additional information.

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Irritation:Mildly irritating

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, Very toxic to aquatic life.

Persistence and degradability:

Readily degradable in the environment.

Bioaccumulative potential: No additional information.**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. Ventilate area of spill. Cover spill with.....of remaining solid as normal refuse.

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

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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):

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 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: 1-0-0**HMIS:** 0-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG International Maritime Code for Dangerous Goods.

IATA International Air Transport Association.

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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.