Ammonium Hydroxide, 3%

1. Identification

**Product Name:** Ammonium Hydroxide, 3%

**Synonyms:** N/A

**Recommended Use:** Laboratory Reagent

**Manufacturer/Supplier:**
Avantik Biogroup  
32 Commerce Street  
Springfield, NJ 07081  
1-888-392-8411

**In Case of Emergency:**
Chemtrec US 1-800-424-9300  
Chemtrec International 703-527-3887

2. Hazards Identification

**OSHA Hazard Classification(s):**
- Skin Irritation - Category 2
- Eye Damage - Category 1

**Signal Word:** Danger

**Hazard Statement(s):** Causes skin irritation. Causes serious eye damage.

**Pictogram(s):**

**Precautionary Statement(s):**
- **Prevention:** Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection.
- **Response:** If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. Immediately call a doctor.

**Storage:** N/A

**Disposal:** N/A

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

3. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name</th>
<th>CAS #</th>
<th>Concentration %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Hydroxide</td>
<td></td>
<td>1336-21-6</td>
<td>3</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>97</td>
</tr>
</tbody>
</table>

4. First Aid Measures

**Eye Contact:** 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.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.
5. Fire-Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water.
Fire Hazards (Chemical): Not flammable.
Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.
Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.
Protective Equipment: See section 8
Environmental Precautions: Prevent release to the environment by using barriers.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>OSHA PEL TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>7664-41-7</td>
<td>50ppm</td>
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</table>

ACGIH Threshold Limit Values (TLVs):

<table>
<thead>
<tr>
<th>Reagent</th>
<th>CAS #</th>
<th>ACGIH PEL TLV</th>
<th>ACGIH STEL</th>
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</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>7664-41-7</td>
<td>25ppm</td>
<td>35ppm</td>
</tr>
</tbody>
</table>

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.
Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.
Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid
Molecular Weight: N/A
Molecular Formula: N/A
pH: Basic solution
Boiling Point and Boiling Range: N/A
Melting Point/Freezing Point: N/A
Flash Point: N/A
Specific Gravity/Relative Density: N/A
Odor: N/A
Odor Threshold: N/A
Color: Colorless
Flammability (solid/gas): N/A
Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Ammonium Hydroxide, 3%

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation Rate:</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility:</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

**Reactivity:** Not Reactive  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** Stable under normal conditions of temperature and pressure  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A

**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

**Likely Routes of Exposure**  
- **Eyes:** Irritation.  
- **Skin:** Irritation.  
- **Inhalation:** Dizziness, headache.  
- **Ingestion:** Nausea.

**Signs or Symptoms of Exposure:** Nausea.  
**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.  
**Acute Toxicity (Numerical Measures):** N/A  
**Carcinogenicity (NTP, IARC, OSHA):** Not listed as a known carcinogen

### 12. Ecological Information

**Ecotoxicity:** N/A  
**Persistence and degradability:** N/A  
**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A  
**Mobility in the soil:** N/A  
**Adverse Environmental Effects:** Most likely to have adverse effects on environment

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities.*  
**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.*  
**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.*  
**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.*  
**Waste Stream:** Consult your local or regional authorities.*

### 14. Transport Information

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*References: Additional information for disposal and handling procedures may be available from regulatory agencies or suppliers.*
Ammonium Hydroxide, 3%

UN Number: Not regulated
UN Proper Shipping Name:
Transport Hazard Class(es):
Packing Group Number:
Environmental Hazards (IMDG code):
  Marine Pollutant:
Transport in Bulk (IBC Code):
Special Transport Precautions:

15. Regulatory Information
OSHA: N/A
DOT: N/A
EPA: N/A
CPSC: N/A
16. Other Information

Revision Date: 12/07/2015

National Fire Protection Association (USA) NFPA

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
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</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td></td>
</tr>
</tbody>
</table>

Hazardous Material Information System HMIS

<table>
<thead>
<tr>
<th>Health</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
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