



**Boston BioProducts, Inc.**  
159 Chestnut Street  
Ashland, MA 01721  
**ISO Certified**

## SAFETY DATA SHEET

### **SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION**

- |            |   |  |
|------------|---|--|
| <b>1.1</b> | PRODUCT NAME:<br>CATALOG #:             | Ammonium Hydroxide (1 M, pH >11.0)<br>BZ-8047                      |
| <b>1.2</b> | RECOMMENDED USE:                        | Laboratory Chemicals   |
| <b>1.3</b> | COMPANY IDENTIFICATION:                 | Boston BioProducts, Inc.<br>159 Chestnut Street, Ashland, MA 01721 |
| <b>1.4</b> | EMERGENCY CONTACT:<br>TOLL FREE NUMBER: | 1-800-535-5053<br>1-888-881-8691                                   |

### **SECTION 2 - HAZARDS IDENTIFICATION**

#### **2.1 Classification of the substance or mixture** **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

H302	Acute toxicity, oral	Category 4
H314	Skin corrosion	Category 1
H318	Serious eye damage	Category 1
H400	Acute aquatic toxicity	Category 1

#### **2.2 GHS Label elements, including Hazard and Precautionary Statement(s)** **Pictogram**



**Signal word: Danger**

#### **Hazard statement(s)**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

#### **Prevention, Response, Storage and Disposal Precautionary Statement(s)**

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.



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P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310	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/doctor.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

### **SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS**

**Composition** 1 M Ammonium Hydroxide, pH > 11.0. Prepared in 18.2 megohms-cm  $\pm$  1 water.

<b>Component</b>	<b>CAS Number</b>	<b>Concentration (%)</b>
Ammonium Hydroxide	1336-21-6	3.5%
Water	7732-18-5	rest

### **SECTION 4 - FIRST-AID MEASURES**

#### **4.1 Description of first aid measures**

**General advice:** Consult a doctor and show this safety data sheet.

- i. **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
- ii. **In case of skin contact:** Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.
- iii. **In case of eye contact:** Flush with copious amounts of water for at least 15 minutes. Consult a doctor.
- iv. **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

**4.2 Most important symptoms and effects, both acute and delayed:** To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**4.3 Indication of immediate medical attention and special treatment needed:** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.



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## **SECTION 5 - FIRE FIGHTING MEASURES**

### **5.1 Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**5.2 Special hazards arising from the substance or mixture:** No Data Available.

**5.3 Precautions for fire-fighters:** Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

**5.4 Further information:** No data available

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:** Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of SDS.

**6.4 Reference to other sections:** For required PPE see section 8. For disposal see section 13.

## **SECTION 7 - HANDLING AND STORAGE**

**7.1 Precautions for safe handling:** Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

**7.2 Conditions for safe storage, including any incompatibilities:** Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Keep in a dry place.

**7.3 Specific end use(s):** Use in a laboratory fume hood where possible

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

**Components with workplace control parameters:** Contains no substances with occupational exposure limit values.

### **8.2 Exposure Controls**

- i. **Appropriate engineering controls:** Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

### **8.3 Personal protective equipment**

- i. **Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- ii. **Skin protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166
- iii. **Body Protection:** Wear appropriate protective clothing. Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the



dangerous substance at the specific workplace.

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- iv. **Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
- v. **Control of environmental exposure:** Do not let product enter drains

#### **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

##### **Information on basic physical and chemical properties**

<b>Appearance</b>	Liquid	<b>Vapor Pressure</b>	No Data Available
<b>Odor</b>	No Data Available	<b>Vapor Density</b>	No Data Available
<b>Odor Threshold</b>	No Data Available	<b>Relative Density</b>	No Data Available
<b>pH</b>	>11.0	<b>Water Solubility</b>	No Data Available
<b>Melting / Freezing Point</b>	No Data Available	<b>Partition Coefficient</b>	No Data Available
<b>Initial Boiling Point Range</b>	No Data Available	<b>Auto-Ignition Temperature</b>	No Data Available
<b>Flash Point</b>	No Data Available	<b>Decomposition Temperature</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available	<b>Viscosity</b>	No Data Available
<b>Flammability (Solid, Gas)</b>	No Data Available	<b>Explosive Properties</b>	No Data Available
<b>Upper / Lower Flammability Or Explosive Limits</b>	No Data Available	<b>Oxidizing Properties</b>	No Data Available

#### **SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Stable under recommended storage conditions.

**Hazardous Decomposition Products/ Hazardous Polymerization:** No Data Available.

**Incompatibilities:** Strong Oxidizing Agents.

#### **SECTION 11 - TOXICOLOGICAL INFORMATION**

##### **Acute Toxicity:**

LD50 Oral – Rat – 350 mg/kg (Ammonium Hydroxide)

Remarks: Gastrointestinal: Other changes. Liver; Other Changes. Liver: Other changes. Kidney, Ureter, Bladder: Other changes.

Inhalation: No data available (Ammonium hydroxide)

Dermal: No data available (Ammonium hydroxide)

No data available (Ammonium hydroxide)

##### **Skin Corrosion/irritation:**

No data available (Ammonium hydroxide)

##### **Serious eye damage/eye irritation:**

No data available (Ammonium hydroxide)

##### **Respiratory or skin sensitization:**

No data available (Ammonium hydroxide)

##### **Germ cell mutagenicity:**

No data available (Ammonium hydroxide)



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**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.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity:**

No data available (Ammonium hydroxide)

**Specific target organ toxicity – single exposure:**

No data available (Ammonium hydroxide)

**Specific target organ toxicity – repeated exposure:**

No data available.

**Aspiration hazard:**

No data available (Ammonium hydroxide)

**Additional Information:**

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. (Ammonium hydroxide)

**SECTION 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity:**

No data available

Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 25.4 mg/l - 48 h (Ammonium hydroxide)
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**Persistence and degradability/ Bioaccumulative potential/ Mobility in soil:** No data available

**Results of PBT and vPvB assessment:**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

No data available

**Chronic Toxicity:** There are no known carcinogenic chemicals in this product



**SECTION 13 - DISPOSAL CONSIDERATIONS**

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.



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#### **SECTION 14 - TRANSPORT INFORMATION**

<b>DOT</b>	<b>TDG</b>	<b>IATA</b>	<b>IMDG/IMO</b>
<b>UN Number:</b> 2672 <b>Proper Shipping Name:</b> Ammonia solution <b>Class:</b> 8 <b>Packing Group:</b> III <b>Reportable Quantity:</b> 1621 lbs <b>Marine pollutant:</b> Yes <b>Poison Inhalation hazard:</b> No 	Not regulated	<b>UN Number:</b> 2672 <b>Proper Shipping Name:</b> Ammonia solution <b>Class:</b> 8 <b>Packing Group:</b> III 	Not regulated

#### **SECTION 15 - REGULATORY INFORMATION**

##### **USA Federal Regulation**

##### **SARA 302 Components:**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

##### **SARA 313 Components:**

The following components are subject to reporting levels established by SARA Title III, Section 313:  
Ammonium Hydroxide (CAS-No.: 1336-21-6)

##### **SARA 311/312 HAZARDOUS CATEGORIZATION:**

Acute Health Hazard

**Clean Water Act/ Clean Air Act:** No Data Available

**Clean Air Act:** Not Applicable

**TSCA 12(b)/ OSHA/ CERCLA:** Not Applicable

**California Proposition 65:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

##### **STATE RIGHT TO KNOW**

<b>Component</b>	<b>Massachusetts</b>	<b>New Jersey</b>	<b>Pennsylvania</b>	<b>Illinois</b>	<b>Rhode Island</b>
Ammonium Hydroxide	Listed	Listed	Listed	-	-

##### **HMIS Rating**

<b>Health hazard</b>	<b>Chronic Health Hazard</b>	<b>Flammability</b>	<b>Physical Hazard</b>
<b>3</b>		<b>0</b>	<b>0</b>

##### **NFPA Rating**



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Health Hazard	Fire Hazard	Reactivity Hazard
3	0	0

**US DEPARTMENT OF TRANSPORTATION**

REPORTABLE QUANTITY (RQ)	DOT MARINE POLLUTANT	DOT SEVER MARINE POLLUTANT
No	No	No

**U.S. DEPARTMENT OF HOMELAND SECURITY:** This product does not contain any DHS chemicals.

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

**This SDS complies with the requirements of Regulation (EC).**

**SECTION 16 - OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Boston BioProducts, Inc shall not be held liable for any damage resulting from handling or from contact with the above product. This product is sold for laboratory research and development purposes use only.

**Revised: 2019**