



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

SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

- 1.1** PRODUCT NAME: Potassium Hydroxide (0.5 M, pH > 11.0)
 CATALOG #: BZ-8049
- 1.2** RECOMMENDED USE: Laboratory Chemicals
- 1.3** COMPANY IDENTIFICATION: Boston BioProducts, Inc.
 159 Chestnut Street, Ashland, MA 01721
- 1.4** EMERGENCY CONTACT: 1-800-535-5053
 TOLL FREE NUMBER: 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)

| | | |
|------|------------------------|-------------|
| H290 | Corrosive to metals | Category 1 |
| H302 | Acute toxicity, oral | Category 4 |
| H314 | Skin corrosion | Category 1A |
| H318 | Serious eye damage | Category 1 |
| H402 | Acute aquatic toxicity | Category 3 |

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



Signal word: Danger
Hazard statement(s)

| | |
|------|---|
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H402 | Harmful to aquatic life |

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

| | |
|------|--|
| P101 | If medical advice is needed, have product container or label at hand |
| P102 | Keep out of reach of children. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |



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| | |
|---------------------------|--|
| P234 | Keep only in original container |
| P260 | Do not breathe dust or mist |
| P264 | Wash skin thoroughly after handling |
| P270 | Do not eat, drink, or smoke when using this product |
| P273 | Avoid release to the environment |
| 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 SWALLOW |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. |
| 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. |
| P363 | Wash contaminated clothing before reuse. |
| P390 | Absorb spillage to prevent material damage. |
| P406 | Store in corrosive resistant stainless steel container with a resistant liner. |

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Composition: 500 mM Potassium Hydroxide, pH > 11.0. Prepared in 18.2 megohms-cm ± 1 water and filtered through 0.22-micron filter.

| Component | CAS Number | Concentration (%) |
|---------------------|-------------------|--------------------------|
| Potassium Hydroxide | 1310-58-3 | 2.8% |
| 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.



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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.

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



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- dangerous substance at the specific workplace.
- 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

| | | | |
|---|-------------------|----------------------------------|-------------------|
| Appearance | Liquid | Vapor Pressure | No Data Available |
| Odor | No Data Available | Vapor Density | No Data Available |
| Odor Threshold | No Data Available | Relative Density | No Data Available |
| pH | >11.0 | Water Solubility | No Data Available |
| Melting / Freezing Point | No Data Available | Partition Coefficient | No Data Available |
| Initial Boiling Point Range | No Data Available | Auto-Ignition Temperature | No Data Available |
| Flash Point | No Data Available | Decomposition Temperature | No Data Available |
| Evaporation Rate | No Data Available | Viscosity | No Data Available |
| Flammability (Solid, Gas) | No Data Available | Explosive Properties | No Data Available |
| Upper / Lower Flammability Or Explosive Limits | No Data Available | Oxidizing Properties | 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 – 333 mg/kg
 LC50 Inhalation: No data available.
 LD50 Dermal: No data available.

Skin corrosion/irritation:
 Skin – Rabbit
 Result: Severe skin irritation – 24 h

Serious eye damage/eye irritation:
 Eyes – Rabbit
 Result: Corrosive to eyes
 (OECD Test Guideline 405)

Respiratory or skin sensitization:
 No data available.

Germ cell mutagenicity:
 No data available.

In vitro mammalian cell gene mutation test mouse lymphoma cells. Result: negative

Carcinogenicity:



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| | |
|-------|---|
| 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 | Product and components are not regulated by the 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.

Specific target organ toxicity – single exposure:

No data available.

Specific target organ toxicity – repeated exposure:

No data available.

Aspiration hazard:

No data available.

Additional Information:

RTECS: TT2100000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

| | |
|------------------|--|
| Toxicity to fish | LC50 – Gambusia affinis (Mosquito fish) – 80 mg/l – 96 h |
|------------------|--|

Persistence and degradability:

The methods for determining the biological degradability are not applicable to inorganic substances.

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. Harmful to aquatic life.

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.

SECTION 14 - TRANSPORT INFORMATION

| DOT | TDG | IATA | IMDG/IMO |
|---|---------------|---|--|
| UN Number: 1813 Proper Shipping Name: Potassium hydroxide, solid Class: 8 Packing group: II | Not regulated | UN Number: 1813 Proper Shipping Name: Potassium hydroxide, solid Class: 8 Packing Group: II | UN Number: 1813 Proper Shipping Name: POTASSIUM HYDROXIDE, SOLID Class: 8 |



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| | | | |
|--|--|---|--|
| Reportable Quantity: 1000 lbs Poison Inhalation Hazard: No  | |  | Packing Group: II EMS-No: F-A, S-B  |
|--|--|---|--|

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:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------------|---------------|------------|--------------|----------|--------------|
| Potassium Hydroxide | Listed | Listed | Listed | - | - |

HMIS Rating

| Health hazard | Chronic Health Hazard | Flammability | Physical Hazard |
|---------------|-----------------------|--------------|-----------------|
| 3 | | 0 | 0 |

NFPA Rating

| 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.



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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