

425 Fortune Blvd. Milford, MA 01757



SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 PRODUCT NAME: Bis-Acrylamide (2%)

CATALOG #: Bis-2

1.2 RECOMMENDED USE: For Research Use and Further Manufacturing Only

1.3 COMPANY IDENTIFICATION: Boston BioProducts, Inc.

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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)

| H301 | Acute toxicity, oral | Category 3 |
|------|--|-------------|
| H332 | Acute toxicity, inhalation | Category 4 |
| H312 | Acute toxicity, dermal | Category 4 |
| H315 | Skin irritation | Category 2 |
| H319 | Eye irritation | Category 2A |
| H317 | Skin sensitization | Category 1 |
| H350 | Carcinogenicity | Category 1B |
| H372 | Specific target organ toxicity, repeated exposure, peripheral nervous system | Category 1 |
| H402 | Acute toxicity | Category 3 |

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



Signal word: Danger
Hazard statement(s)

| H301 | Toxic if swallowed. |
|------|---|
| H332 | Harmful in contact with skin or if inhaled. |
| H312 | Causes skin irritation. |



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| H315 | May cause an allergic skin reaction. |
|------|--|
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H372 | Causes damage to organs (Peripheral nervous system) through prolonged or repeated exposure if swallowed. |
| H402 | Harmful to aquatic life. |

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

| revention, Respon | se, Storage and Disposal Precautionary Statement(s) |
|-----------------------|--|
| P201 | Obtain special instructions before use |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301 + P310 + P330 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth |
| P302 + P352 + P312 | IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. |
| P304 + P340 + P312 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/ attention. |
| P337 + P313 | If eye irritation persists: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

Composition: 2% Bis-Acrylamide. Prepared in 18.2 megohms-cm \pm 1 water.

| Component | CAS# | EINECS# | Concentration |
|-------------------------------|----------|-----------|---------------|
| N,N'-Methylenebis(Acrylamide) | 110-26-9 | 231-791-2 | 2.00 % |



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| Water | 7732-18-5 | 203-750-9 | 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.

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.



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- **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.
- **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

| 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 | | |
| рН | No Data Available | 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: No data available.



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| LD50 Oral (rat) | 177 mg/kg (Acrylamide) |
|-----------------------|---------------------------------|
| Inhalation | No data available |
| LC50 Inhalation (rat) | 4 h -> 1,500 mg/m3 (Acrylamide) |
| Dermal | No data available. |
| LD50 Dermal (rabbit) | 1,141 mg/kg (Acrylamide) |
| (OECD Test Guideline) | |

Oral: Category 4

Dermal: Based on available data, the classification criteria are not met **Inhalation**: Based on available data, the classification criteria are not met

Skin corrosion/irritation: Category 2

Skin – Rabbit (Acrylamide) Result: No skin irritation (OECD Test Guideline 405)

Serious eye damage/irritation: Category 2

Eyes – Rabbit (Acrylamide) Result: Irritating to eyes. (OECD Test Guideline 405)

Respiratory or skin sensitization:

Maximization Test – Guinea pig (Acrylamide) May cause allergic skin reaction. (OECD Test Guideline 406)

Skin: Category 1 May cause sensitization by skin contact

Germ cell mutagenicity: Category 1B

May alter genetic material. In vivo tests showed mutagenic effects (Acrylamide)

Carcinogenicity; Category 1B

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC,

OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen (Acrylamide)
IARC: 2A - Group 2A: Probably carcinogenic to humans (Acrylamide)

NTP: RAHC - Reasonably anticipated to be a human carcinogen (Acrylamide)

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:

Animal testing did not show any effects on fetal development. (Acrylamide) May cause reproductive disorders. Suspected human reproductive toxicant (Acrylamide)

Specific target organ toxicity - single exposure

No data available (Acrylamide)

Specific target organ toxicity - repeated exposure

Oral – causes damage to organs through prolonged or repeated exposure. – Peripheral nervous system.

Aspiration hazard

No data available (Acrylamide)

Additional information

RTECS: Not available.

Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy., Drowsiness, Loss of balance, Confusion.

Liver - Irregularities - Based on Human evidence

Liver – Irregularities – Based on Human evidence (Acrylamide)



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SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity effects:

Biodegradability

| 250 5: 1 1 |
|--|
| C50 – Pimephales promelas (fathead minnow) – 90 mg/l – 96 h (Acrylamide) DEC – Cyprinus carpio (carp) – 5 mg/l – 28 d (Acrylamide) |
| ortality NOEC – Daphnia magna (water flea) – 60 mg/l – 48 h (Acrylamide) |
|) |

Bioconcentration factor (BCF): 1.65

Persistence and degradability:

| Bioaccumulative potential: | | | | | | |
|----------------------------|---|--|--|--|--|--|
| Bioaccumulation | Result: 100 % - Readily biodegradable. (OECD Test Guideline 301D) | | | | | |
| | Oncorhynchus mykiss (rainbow trout) – 72 h - 710 µg/l (Acrylamide) | | | | | |

Mobility in soil: No data available (Acrylamide)

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. 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.

SECTION 14 - TRANSPORT INFORMATION

| DOT | TDG | IATA | IMDG/IMO |
|-----------------------|---------------|-----------------------|--------------------|
| UN number: 2074 | | UN Number: 2074 | UN Number: 2074 |
| Proper Shipping name: | Not regulated | Proper Shipping name: | Proper Shipping |
| Acrylamide, solid | _ | Acrylamide, solid | Name: Acrylamide, |
| Class: 6.1 | | Class: 6.1 | Solid |
| Packing Group: III | | Packing Group: III | Class: 6.1 |
| Poison Inhalation | | | Packing Group: III |
| Hazard: No | | | EMS-No: F-A, S-A |
| Y | | Y | Y |



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SECTION 15 - REGULATORY INFORMATION

USA Federal Regulation

SARA 302 Components:

The following components are subject to reporting levels established by SARA Title III, Section 302:

Acrylamide CAS-No.: 79-06-1

SARA 313 Components:

The following components are subject to reporting levels established by SARA Title III, Section 313:

Acrylamide CAS-No.: 79-06-1

SARA 311/312 HAZARDOUS CATEGORIZATION:

Acute Health Hazard, Chronic 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:

Warning: This product contains a chemical known to the state of California to cause cancer.

Acrylamide (CAS-No: 79-06-1)

Warning: This product contains a chemical known to the state of California to cause birth defects or other

reproductive harm.

Acrylamide (CAS-No.: 79-06-1)

STATE RIGHT TO KNOW

| Components | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------------------------|---------------|------------|--------------|----------|-----------------|
| Acrylamide | Listed | Listed | Listed | - | - |
| N,N'- Methylenediacrylamide | - | Listed | Listed | - | - |

HMIS Rating

| Health hazard | Chronic Health Hazard | Flammability | Physical Hazard |
|---------------|-----------------------|--------------|-----------------|
| 2 | | 1 | 1 |

NFPA Rating

| Health Hazard | Fire Hazard | Reactivity Hazard |
|---------------|-------------|-------------------|
| 2 | 1 | 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).



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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: 2023