

## SAFETY DATA SHEET

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

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|------------|---|---|
| <b>1.1</b> | PRODUCT NAME:<br>CATALOG #:             | Laemmli SDS-Sample Buffer (6X, Reducing)<br>BP-111R             |
| <b>1.2</b> | RECOMMENDED USE:                        | Research Use or Further Manufacturing                           |
| <b>1.3</b> | COMPANY IDENTIFICATION:                 | Boston BioProducts, Inc.<br>425 Fortune Blvd. Milford, MA 01757 |
| <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)**

H301	Acute toxicity, Oral	Category 3
H331	Acute toxicity, Inhalation	Category 3
H310	Acute toxicity, Dermal	Category 2
H315	Skin corrosion/irritation	Category 2
H317	Skin Sensitization	Category 1
H318	Serious eye damage	Category 1
H319	Serious eye damage/eye irritation	Category 2
H334	Respiratory Sensitization	Category 1
H335	Specific target organ toxicity, single exposure; Respiratory tract irritation	Category 3
H361	Reproductive toxicity	Category 2
H373	Specific target organ toxicity	Category 2
H400	Short-term (acute) aquatic hazard	Category 1
H411	Long-term (chronic) aquatic hazard	Category 2

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

##### **Pictogram**



**Signal word: Danger**

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

H301 + 331	Toxic if swallowed or if inhaled.
H310	Fatal in contact with skin.



H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage.
H319	Cause serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs (Liver, Heart) through prolonged or repeated exposure if swallowed.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

**Prevention, Response, 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.
P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P260	Do not breathe mist or vapors.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P262	Do not get in eyes, on skin, or on clothing.
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.
P285	In case of inadequate ventilation wear respiratory protection
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P302 + P350 + P310	IF ON SKIN: Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/ physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P311	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P321	Specific treatment (see. on this label). Immediately call a POISON CENTER/ doctor.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.



P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

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

**Composition:** Mixture of 375 mM Tris base and Tris-HCl, 9% SDS, 50% glycerol, 0.075% Bromophenol Blue, 9% 2-Mercaptoethanol, pH 6.80 ± 0.20 (1X).

Component	CAS Number	Composition
Tris Base / Tris-HCl	77-86-1 / 1185-53-1	5.85%
SDS	151-21-3	9.00%
Glycerol	56-81-5	50.00%
Bromophenol Blue	34725-61-6	0.075%
2-Mercaptoethanol	60-24-2	9.00%
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.

**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. Store at room temperature.

**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**

<b>Appearance</b>	Non-clear, Dark Blue 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>	6.80 (1X)	<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, Bases.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

<b>Component</b>	<b>LD50 Oral</b>	<b>LD50 Dermal</b>	<b>LD50 Inhalation</b>
Sodium Dodecyl Sulfate (Solid)	1288 mg/kg (Rat)	580 mg/kg (Rabbit)	3900 mg/m <sup>3</sup> (Rat)-1 h
2-Mercaptoethanol	190 mg/kg (Mouse)	Not Listed	2.05 mg/L (Rat)- 4 h

**SECTION 12 - ECOLOGICAL INFORMATION**

**Ecotoxicity:** Do not empty into drain.

<b>Component</b>	<b>Toxicity to fish</b>	<b>Toxicity to Algae</b>
Sodium Dodecyl Sulfate (Solid)	LC50 15-18.9 mg/L Pimephales promelas 96 h	EC50 3.59 - 15.6 mg/L 96 h
	LC50 4.06-5.75 mg/L Lepomis macrochirus 96 h	
	LC50 4.2-4.8 mg/L Lepomis macrochirus 96 h	EC50 = 117 mg/L 96 h
	LC50 6.2-9.6 mg/L Pimephales promelas 96 h	EC50 = 53 mg/L 72 h
	LC50= 4.2 mg/L Oncorhynchus mykiss 96 h	
	LC50 13.5-18.3 mg/L Poecilia reticulata 96 h	EC50 30 - 100 mg/L 96 h
	LC50 5.8-7.5 mg/L Pimephales promelas 96 h	
	LC50 9.9-20.1 mg/L Brachydanio rerio 96 h	
	LC50 10.2-22.5 mg/L Pimephales promelas 96 h	
	LC50 8-12.5 mg/L Pimephales promelas 96 h	
	LC50= 4.5 mg/L Lepomis macrochirus 96 h	



	LC50= 4.62 mg/L Oncorhynchus mykiss 96 h LC50 10.8-16.6 mg/L Poe cilia reticulate 96 h LC50 22.1-22.8 mg/L Pimephales promelas 96 h LC50 4.3-8.5 mg/L Oncorhynchus mykiss 96 h LC50= 1.31 mg/L Cyprinus carpio 96 h LC50= 7.97 mg/L Brachydanio rerio 96 h	
2-Mecraptoethanol	LC50 37 mg/L Leuciscus idus 96 h	EC50 0.4 mg/L 48 h ErC50 19 mg/L 72 h

**Persistence and degradability:**

Biodegradability	> 70% - rapidly biodegradable
Biochemical Oxygen	105 mg/g
Chemical Oxygen	1.894 mg/g

**Bioaccumulative potential:** Does not accumulate in organisms.

**Mobility in soil:** No data available

**Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** No data available

**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
Not regulated	Not regulated	Not regulated	Not regulated

**SECTION 15 - REGULATORY INFORMATION**

**USA FEDERAL REGULATION**

**SARA 311/312 HAZARDOUS CATEGORIZATION**

<b>Acute Health Hazard</b>	<b>Chronic Health Hazard</b>	<b>Fire Hazard</b>	<b>Sudden Release Of Pressure Hazard</b>	<b>Reactive Hazard</b>
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**Boston BioProducts, Inc**

425 Fortune Blvd.

Milford, MA 01757



Yes	No	No	No	No
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**Clean Water Act/ Clean Air Act:** Not Applicable

**TSCA 12(b)/ OSHA/ SARA 313:** Not Applicable.

**California Proposition 65:** This product does not contain any Proposition 65 chemicals

**HMIS Rating**

Health hazard	Chronic Health Hazard	Flammability	Physical Hazard
1	0	0	0

**NFPA Rating**

Health hazard	Fire hazard	Reactivity Hazard
0	0	0

**STATE RIGHT TO KNOW**

Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
-	Listed	Listed	-	-

**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: 2023**