

## Material Safety Data Sheet

Printing date 11/19/2011

Reviewed on 10/27/2011

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Laemmli Sample Buffer
- **Catalog or product number:** 1610737, 1610737EDU, 1610737XTU
- **Application of the substance / the preparation** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547 (510)741-1000
- **Information department:**  
Technical services, customer support  
sg\_techserv\_us@bio-rad.com
- **Emergency telephone number:**  
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.  
510-741-1000

## 2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with non-hazardous additions.

· **Listing of dangerous and non-hazardous components:**

|           |                         |                        |          |
|-----------|-------------------------|------------------------|----------|
| 7732-18-5 | water                   |                        | 50-100%  |
| 56-81-5   | glycerol                |                        | 20-35%   |
| 151-21-3  | sodium dodecyl sulphate | Xn R21/22<br>Xi R36/38 | 1.0-2.5% |

- **Additional information** For the wording of the listed risk phrases refer to section 15.

## 3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.  
The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.
- **Label elements**
- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

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- **Safety phrases:**  
60 This material and its container must be disposed of as hazardous waste.

## 4 First aid measures

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.

## 5 Firefighting measures

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment (See section 8). Keep unprotected persons away.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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## Components with limit values that require monitoring at the workplace:

### 56-81-5 glycerol

|        |                                   |
|--------|-----------------------------------|
| PEL () | 15* 5** mg/m <sup>3</sup>         |
|        | *total dust **respirable fraction |
| TLV () | 10* ppm                           |
|        | *Mist                             |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures** The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves** Synthetic gloves
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

## 9 Physical and chemical properties

### General Information

|                           |                 |
|---------------------------|-----------------|
| • <b>Appearance:</b>      |                 |
| • <b>Form:</b>            | liquid          |
| • <b>Color:</b>           | Light blue      |
| • <b>Odor:</b>            | Odorless        |
| • <b>Odour threshold:</b> | Not determined. |

|                            |     |
|----------------------------|-----|
| • <b>pH-value at 20°C:</b> | 6.8 |
|----------------------------|-----|

|                                       |              |
|---------------------------------------|--------------|
| • <b>Change in condition</b>          |              |
| • <b>Melting point/Melting range:</b> | undetermined |
| • <b>Boiling point/Boiling range:</b> | 100°C        |

|                       |         |
|-----------------------|---------|
| • <b>Flash point:</b> | > 100°C |
|-----------------------|---------|

|                                        |                 |
|----------------------------------------|-----------------|
| • <b>Flammability (solid, gaseous)</b> | Not applicable. |
|----------------------------------------|-----------------|

|                                |       |
|--------------------------------|-------|
| • <b>Ignition temperature:</b> | 400°C |
|--------------------------------|-------|

|                                     |                 |
|-------------------------------------|-----------------|
| • <b>Decomposition temperature:</b> | Not determined. |
|-------------------------------------|-----------------|

|                         |                              |
|-------------------------|------------------------------|
| • <b>Auto igniting:</b> | Product is not selfigniting. |
|-------------------------|------------------------------|

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| • <b>Danger of explosion:</b> | Product does not present an explosion hazard. |
|-------------------------------|-----------------------------------------------|

|                            |                 |
|----------------------------|-----------------|
| • <b>Explosion limits:</b> |                 |
| • <b>Lower:</b>            | 0.9 Vol %       |
| • <b>Upper:</b>            | Not determined. |

|                                  |        |
|----------------------------------|--------|
| • <b>Vapor pressure at 20°C:</b> | 23 hPa |
|----------------------------------|--------|

|                           |                 |
|---------------------------|-----------------|
| • <b>Density:</b>         | Not determined  |
| • <b>Relative density</b> | Not determined. |
| • <b>Vapour density</b>   | Not determined. |
| • <b>Evaporation rate</b> | Not determined. |

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|                                                  |                |
|--------------------------------------------------|----------------|
| • <b>Solubility in / Miscibility with Water:</b> | Fully miscible |
|--------------------------------------------------|----------------|

|                                                     |                 |
|-----------------------------------------------------|-----------------|
| • <b>Segregation coefficient (n-octanol/water):</b> | Not determined. |
|-----------------------------------------------------|-----------------|

|                     |                 |
|---------------------|-----------------|
| • <b>Viscosity:</b> |                 |
| • <b>dynamic:</b>   | Not determined. |
| • <b>kinematic:</b> | Not determined. |

|                            |        |
|----------------------------|--------|
| • <b>Solvent content:</b>  |        |
| • <b>Organic solvents:</b> | 26.3 % |
| • <b>Water:</b>            | 70.8 % |

|                            |                                            |
|----------------------------|--------------------------------------------|
| • <b>Solids content:</b>   | 2.9 %                                      |
| • <b>Other information</b> | No further relevant information available. |

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version;  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
- **Target organs:** Not applicable.

## 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Hand over to hazardous waste disposers.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |                                                                                      |                                                      |
|--------------------------------------------------------------------------------------|------------------------------------------------------|
| · <b>UN-Number</b><br>· DOT, ADR, ADN, IMDG, IATA                                    | Void                                                 |
| · <b>UN proper shipping name</b><br>· DOT, ADR, ADN, IMDG, IATA                      | Void                                                 |
| · <b>Transport hazard class(es)</b><br>· DOT, ADR, ADN, IMDG, IATA<br>· <b>Class</b> | Void                                                 |
| · <b>Packing group</b><br>· DOT, ADR, IMDG, IATA                                     | Void                                                 |
| · <b>Environmental hazards:</b><br>· <b>Marine pollutant:</b>                        | No                                                   |
| · <b>Special precautions for user</b>                                                | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>     | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                           | Not dangerous according to the above specifications. |

## 15 Regulatory information

- **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**
- **Section 302/304 (40CFR355.30 / 40CFR355.40):**  
None of the ingredients is listed.
- **Section 313 (40CFR372.65):**  
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)**  
None of the ingredients is listed.

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- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **National regulations**

- **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK    | 20-35      |

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Environmental Health and Safety.

- **Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

- **\* Data compared to the previous version altered.**

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