

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Version: 1.2

Creation Date: 2017/09/11

Revision Date: 2019/01/04

## 1. Identification

### Product identifier

Product name	6X Laemmli SDS Sample Buffer, reducing
Product number	SBR06-15
Recommended use	Biochemical reagent for research use only

### Details of the supplier of the safety data sheet

Manufacture / Supplier	Energenesis Biomedical Co., Ltd.
Address	6F-3, No.21, Ln. 583, Ruiguang Rd., Neihu Dist. Taipei City 114, Taiwan
Phone	+886-2-2627-0835
Fax	+886-2-2627-0836

**Emergency telephone number** +886-2-2627-0835

## 2. Hazard(s) identification

**Classification of the substance or mixture** Classification according to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 3	H311
Acute Tox. 4	H302, H312, H332
Skin Corr. 1B	H314
Skin Irrit. 2	H315
Eye Irrit. 2	H319
STOT SE 3	H335
Aquatic Chronic 2	H411

### Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictogram



Signal word

Warning

Hazard statements

H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H411	Toxic to aquatic life with long lasting effects

Precautionary statements

P260	Do not breathe dusts or mists.
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# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hand thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 3. Composition/information on ingredients

Substance/mixture		Mixture	
CAS No. EC No. Index No.	Component Name Synonyms	1272/2008 (CLP)	Percent
56-81-5 200-289-5 —	Glycerol		50
77-86-1 201-064-4 —	Trometamol		4.5
151-21-3 205-788-1 —	Sodium dodecyl sulphate	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319	9

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

62625-28-9 263-653-2 —	Sodium $\alpha$ -(3,5-dibromo-4-oxo-2,5-cyclohexadienylylidene)- $\alpha$ -(3,5-dibromo-4-hydroxyphenyl)toluenesulphonate	Skin Irrit. 2; H315 Eye Irrit. 2, H319 STOT SE 3; H335	0.03
151-21-3 205-788-1 —	2-mercaptoethanol	Acute Tox. 4, H302 Acute Tox. 3, H311 Skin Corr. 1B, H314 Acute Tox. 4, H332 Aquatic Chronic 2; H411	9

## Additional information

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. First aid measures

### Description of first aid measures

Eye Contact	Flush eyes with water as a precaution
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Skin Contact	Wash off with soap and plenty of water.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

### Indication of any immediate medical attention and special treatment needed

No data available

## 5. Firefighting measures

### Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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### Special hazards arising from the substance or mixture

No data available

### Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and material for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

<b>Reference to other sections</b>	For disposal see section 13.
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7. Handling and storage	
<b>Precautions for safe handling</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: -20 °C
<b>Specific end use(s)</b>	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. Exposure controls/personal protection																
<b>Control parameters</b>	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.															
<table border="1"> <thead> <tr> <th>Component Name CAS No.</th> <th>PEL-TWA</th> <th>PEL-STEL</th> <th>PEL-Ceiling</th> <th>BEIs</th> </tr> </thead> <tbody> <tr> <td>Glycerol 56-81-5</td> <td>10 mg/m<sup>3</sup></td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>Trometamol 77-86-1</td> <td>5 mg/m<sup>3</sup></td> <td>—</td> <td>5 mg/m<sup>3</sup></td> <td>—</td> </tr> </tbody> </table>	Component Name CAS No.	PEL-TWA	PEL-STEL	PEL-Ceiling	BEIs	Glycerol 56-81-5	10 mg/m <sup>3</sup>	—	—	—	Trometamol 77-86-1	5 mg/m <sup>3</sup>	—	5 mg/m <sup>3</sup>	—	
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<b>Exposure controls</b>																
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.															
Personal protective equipment																
Eye protection	Wear chemical safety goggles. An eye wash station must be available where this product is used.															
Skin and body protection	Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.															
Respiratory protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.															
Hand protection	Wear chemically resistant gloves, Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.															

9. Physical and chemical properties	
<b>Information on basic physical and chemical properties</b>	
Appearance	Form: liquid Color: blue
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	No data available

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Lower and upper explosive (flammable) limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Solubility	No data available
Solubility in water	No data available
Partition coefficient: n-octanol/ water (log Kow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

## 10. Stability and reactivity

<b>Reactivity</b>	No data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	No data available
<b>Incompatible materials</b>	No data available
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

**Information on toxicological effects** No data available

### Acute toxicity

Component Name CAS No.	Result	Species	Dose	Exposure
Glycerol 56-81-5	LD50 Dermal	Rat	21,900 mg/kg	—
	LD50 Oral	Rat	12,600 mg/kg	—
Trometamol 77-86-1	LD50 Dermal	Rat	>5,000 mg/kg	—
	LD50 Oral	Rat	>5,000 mg/kg	—
Sodium dodecyl sulphate 151-21-3	LD50 Dermal	Rabbit	580 mg/kg	—
	LD50 Oral	Rat	1,288 mg/kg	—
2-mercaptoethanol 60-24-2	LD50 Dermal	Rabbit	112-224 mg/kg	—
	LD50 Oral	Rat	244 mg/kg	—

### Skin corrosion/irritation

Component Name CAS No.	Result	Species	Exposure
Sodium dodecyl sulphate	Eyes - Moderate irritant	Rabbit	10 mg (standard Draize)

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

151-21-3	Skin - Mild irritant	Rabbit	25 mg (standard Draize)
Serious eye damage/eye irritation	No data available		
Respiratory or skin sensitisation	No data available		
Germ cell mutagenicity	No data available		
Carcinogenicity	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.		
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	No data available		

## 12. Ecological information

### Toxicity

Component Name CAS No.	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microto x Data	log Pow
Sodium dodecyl sulphate 151-21-3	Desmodes mus subspicatus EC50 53 mg/L (72 h) Desmodes mus subspicatus EC50 30 - 100 mg/L (96 h) Pseudokirc hneriella subcapitata EC50 3.59 - 15.6 mg/L (96 h) Pseudokirc hneriella subcapitata EC50 117 mg/L (96 h)	Daphnia magna EC50 1.8 mg/L (48 h)	Pimephales promelas LC50 10.2 - 22.5 mg/L (96 h semi- static 1) Poecilia reticulata LC50 10.8 - 16.6 mg/L (96 h static 1) Poecilia reticulata LC50 13.5 - 18.3 mg/L (96 h semi-static 1) Pimephales promelas LC50 15 - 18.9 mg/L (96 h static 1) Pimephales promelas LC50 22.1 - 22.8 mg/L (96 h static 1) Lepomis macrochirus LC50 4.06 - 5.75 mg/L (96 h static 1) Lepomis macrochirus LC50 4.2 - 4.8 mg/L (96 h flow-through 1) Oncorhynchus mykiss LC50 4.3 - 8.5 mg/L (96 h static 1) Pimephales promelas LC50 5.8 - 7.5 mg/L (96 h static 1) Pimephales promelas LC50 6.2 - 9.6 mg/L (96 h 1) Pimephales promelas LC50 8 - 12.5 mg/L (96 h static 1) Brachydanio rerio LC50 9.9 - 20.1 mg/L (96 h semi-static 1) Cyprinus carpio LC50 1.31 mg/L (96 h semi-static 1) Oncorhynchus mykiss LC50 4.2 mg/L (96 h 1) Lepomis macrochirus LC50 4.5 mg/L (96 h 1)	—	1.6

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

			Oncorhynchus mykiss LC50 4.62 mg/L (96 h flow-through 1) Brachydanio rerio LC50 7.97 mg/L (96 h flow-through 1)		
2-mercaptoethanol 60-24-2	Desmodes mus subspicatus EC50 12 mg/L (72 h)	Daphnia magna EC50 1.52 mg/L (48 h)	Leuciscus idus LC50 46 - 100 mg/L (96 h static)	Pseudo monas putid EC50 125 mg/L (17 h)	-0.056

**Persistence and degradability** No data available

**Bioaccumulative potential** No data available

**Mobility in soil** No data available

**Results of PBT and vPvB assessment** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects** No data available

## 13. Disposal considerations

### Waste treatment methods

Product	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Dispose of as unused product.

## 14. Transport information

**IATA / ADR / RID / IMDG** Classified as dangerous in the meaning of transport regulations.

**UN number** —

**UN proper shipping name** Not dangerous goods

**Transport hazard class(es)** —

**Packaging group** —

**Environmental hazards** no

**Special precautions for user** No data available

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** No data available



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

## 15. Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Chemical safety assessment** No data available

## 16. Other information

### Abbreviations

ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road
Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment, long-term hazard
BEIs	Biological exposure indices
Eye Irrit.	Serious eye damage/eye irritation
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association-Dangerous Goods Regulations
CAS	Chemical Abstracts Service (division of the American Chemical Society)
OSHA	Occupational Health and Safety Administration
PEL	Permissible Exposure Limit
RID	Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Corr.	Skin corrosion/irritation
Skin Irrit.	Skin corrosion/irritation
STEL	Short Term Exposure Limit
STOT SE	Specific target organ toxicity, single exposure; Respiratory tract irritation
TWA	Time Weighted Average

### Further information

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