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

1.1 Product identifiers

Product Name: SDS loading buffer (1x)
Product Number: part of Strep-tag® Protein Ladder (2-1011-100)

Registration Number:
A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture

Laboratory chemical

and uses advised against:
No relevant information available.

1.3 Details of the supplier of the safety data sheet

Supplier: IBA GmbH
Rudolf-Wissell-Str. 28
37079 Göttingen
Germany

Telephone: +49-551-50672-0
E-mail: info@iba-lifesciences.com

1.4 Emergency Telephone Number

Emergency Phone: +49 (0)551/19240 (Poison Information Center Göttingen)

2 Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]
Eye Dam. 1 (H318), Aquatic Chronic 2 (H411)

2.2 Label elements

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

Hazard pictogram:

- Danger

H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
Precautionary statements:
P273 Avoid release to the environment.
P280 Wear eye/face protection.
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 or physician.
EUH phrases: n/a

2.3 Other hazards
All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

3 Composition/Information on ingredients

3.2 Chemical characterization: Mixtures

Hazardous components according to Regulation (EC) No 1272/2008 [CLP]:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>%</th>
<th>Classification acc. to (EC) 1972/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Mercaptoethanol</td>
<td>60-24-2</td>
<td>2,5 %</td>
<td>Acute Tox. (oral) 3, Acute Tox. (dermal and inhal.) 2, Skin Irrit. 2, Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1, H301, H310, H315, H318, H330, H400, H410</td>
</tr>
<tr>
<td>SDS Ultra Pure (Carl Roth Cat. No. 2326)</td>
<td>151-21-3</td>
<td>1,7 %</td>
<td>Flam Sol. 2, Acute Tox. (oral and inhal.) 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, Aquatic Chronic 3, H228, H302, H315, H318, H332, H335, H412</td>
</tr>
<tr>
<td>Tris</td>
<td>77-86-1</td>
<td>1,3 %</td>
<td>Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, H315, H319, H335</td>
</tr>
<tr>
<td>EDTA (Ethylene diaminetetraacetic acid)</td>
<td>6381-92-6</td>
<td>0,09 %</td>
<td>Acute Tox. 4 (inhal.), STOT RE 2, H332, H372</td>
</tr>
<tr>
<td>Bromphenol Blue</td>
<td>115-39-9</td>
<td>0,01 %</td>
<td>Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, H315, H319, H335</td>
</tr>
</tbody>
</table>

4 First aid measures

4.1 Description of first aid measures

After inhalation: Provide fresh air. Consult a physician.
After skin contact: Wash with plenty of soap and water. If irritation persists consult a physician.
After eye contact: Flush eyes with water for at least 15 minutes. Consult a physician immediately.
After ingestion: Rinse mouth and drink water if conscious. Do NOT induce vomiting. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Irritations.

4.3 Indications of any immediate medical attention and special treatment needed

No relevant information available.
5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
CO₂, dry extinguishing powder, foam, or water spray.

Unsuitable extinguishing media
No relevant information available.

5.2 Special hazards arising from the substance of mixture
No relevant information available.

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting (see section 5.2).

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear suitable protective equipment.
Avoid eye and skin contact.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and material for containment and cleaning up
Take up mechanically.
Place in appropriate containers for disposal.
Provide suitable ventilation.

6.4 Reference to other sections
Information about safe handling: see section 7.
Information about protective equipment: see section 8.
Information for disposal: see section 13.

7 Handling and storage

7.1 Precautions for safe handling
Provide appropriate ventilation.
Keep containers tightly shut.
Remove ignition sources. Don’t smoke.

7.2 Conditions for safe storage, including any incompatibilities
Storage rooms and containers: No special requirements.
Incompatible substances or mixtures: Keep away from food and drink.
Consideration of other advice: Keep containers tightly closed.
Recommended storage temperature: -25 – -15 °C

7.3 Specific end use(s)
No relevant information available.
8 Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters:
No relevant information available.

8.2 Exposure controls

General precautionary and hygiene measures
The usual precautions for handling chemicals should be observed.
Avoid contact with eyes and skin. Wash hands before breaks and after work.

Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Inspect gloves prior to each use. Choose suitable gloves according to break through time, permeation rate and material degradation.

Glove material
Nitrile rubber, minimum layer thickness: ≥ 0,11 mm
The suitability of gloves depends on several quality characteristic besides the material. It may differ from one supplier to another.

Break through time
Break through level: Level ≥ 6
The exact break through time should be inquired from the supplier and should be observed.

Eye protection
Use safety goggles with side protection.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: colorless liquid
Odor: no data available
Odor threshold: no data available
pH: no data available
Melting point: no data available
Freezing point: no data available
Initial boiling point and boiling range: no data available
Flash point: no data available
Evaporation rate: no data available
Upper/lower explosive limits: no data available
Vapor pressure: no data available
Vapor density: no data available
Relative density: no data available
Water solubility: no data available
Partition coefficient (n-octanol/water): no data available
Viscosity: no data available
Explosive properties: no data available
Oxidizing properties: no data available

9.2 Other safety information
No further relevant information available.

10 Stability and reactivity

10.1 Reactivity
See section 10.3

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No relevant information available.

10.4 Conditions to avoid
No relevant information available.

10.5 Incompatible materials
No relevant information available.

10.6 Hazardous decomposition products
See section 5.

11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity
ATE(mix) oral > 3500 mg/kg
ATE(mix) dermal > 5000 mg/kg
ATE(mix) inhalation > 50 mg/kg

Skin corrosion/irritation
May cause skin irritation.

Serious eye damage/eye irritation
Causes serious eye damage.
Respiratory or skin sensitization.
No component is classified as a respiratory or skin sensitizer.

Germ cell mutagenicity
No component is classified as a mutagenic toxicant.

Carcinogenicity
No component is classified as a carcinogenic toxicant.

Reproductive toxicity
May damage the unborn child.

Specific target organ toxicity – single exposure
Tris (1,3%), SDS ultra pure (1,7%) and Bromphenol blue (0,01%) may cause respiratory irritations.

Specific target organ toxicity – repeated exposure
EDTA (<1%) may cause respiratory irritation (repeated exposure).

Aspiration hazard
No component is classified as an aspiration hazard.

12 Ecological information

12.1 Toxicity
No relevant information available.

12.2 Persistence and degradability
No relevant information available.

12.3 Bioaccumulative potential
No relevant information available.

12.4 Mobility in soil
No relevant information available.

12.5 Results of PBT- and vPvB-assessment
No relevant information available.

12.6 Other adverse effects
No relevant information available.

13 Disposal considerations

13.1 Waste treatment methods
Recommendation for product:
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

Contaminated packaging:
Dispose of as unused product.
14 Transport information

14.1 UN-Number
ADR/RID: - IMDG: - IATA: -

14.2 UN proper shipping name
ADR/RID: - IMDG: - IATA: -

14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -

14.4 Packaging group
ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards
ADR/RID: no IMDG: marine pollutant: no IATA: no

14.6 Special precaution for user
No relevant information available.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC code
No relevant information available.

15 Regulatory Information

15.1 Safety, health and environmental regulation specific for the substance or mixture
National regulations:
No relevant information available.

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance / mixture.

16 Other information
The above information is based on our present-day knowledge. It does not represent any guarantee of the properties of the product, not guarantee specific properties of the product and shall not establish a legally valid contractual relationship.