SAFETY DATA SHEET

Section 1 – Identification

Product Name    Accutase® Cell Detachment Solution
Recommended Use Research use only.
Catalog No. 423201
Company BioLegend
Street Address 9727 Pacific Heights Blvd
City, State, Zip, Country San Diego, CA 92121 US
Phone +1-858-455-9588
Emergency Number In case of a chemical emergency, spill, fire, or exposure, +1-858-455-9588 (7:00AM – 5:00PM PDT, M-F)

Principal demands according to Art. 32 REACH
Registration number(s) --
Authorization none
Restrictions none

Section 2 – Hazards Identification

2.1 Hazard Classification
Not classified

2.2 GHS Label elements, including precautionary statements
Pictogram None
Signal Word None
Hazard Statement None
Precautionary Statement None

Section 3 – Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>EINECS</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary formulation of enzymes, water, phosphate buffered saline, and phenol red</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
</tr>
</tbody>
</table>
Section 4 – First Aid Measures

4.1 Description of first aid measures

General information: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

After inhalation: Move to fresh air. If breathing is difficult/has stopped, give artificial.

After skin contact: Immediately remove contaminated clothes, and wash with soap and copious amounts of water.

After eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the eye lids to ensure thorough rinsing.

After swallowing: Wash mouth out with water if person is conscious. Seek medical attention.

Section 5 – Fire-Fighting Measures

5.1 Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards caused by the material, its products of combustion or resulting gases: During heating or in case of fire, carbon dioxide and carbon monoxide may be produced.

5.3 Special protective equipment and precautions for fire-fighters: Wear protective clothing and self-contained breathing apparatus.

Hazardous combustion materials: No data available.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures: Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

6.2 Environment precautions: N/A.

6.3 Measures for cleaning/collecting: Absorb with sand or vermiculite. Wash spill site after material is picked up.

6.4 Additional information:
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7 – Handling and Storage
7.1 Information for safe handling: Keep container tightly closed when not in use.

7.2 Conditions for safe storage, including any incompatibilities: Suitable for general chemical storage area.
Section 8 – Exposure controls/personal protection

8.1 Exposure Limits

Unknown.

8.2 Exposure Controls

Engineering Controls
Use only with adequate (local exhaust) ventilation or fume hood.

Personal protective equipment

- **General protective and hygienic measures**
  - Keep away from foodstuffs, beverages, and feed.
  - Wash hands, face, and exposed forearms/areas after handling.
  - Wash contaminated clothing before reusing.
  - Ensure eyewash stations and safety showers are in close proximity to workstation.

- **Breathing equipment**: Not required.
- **Protection of hands**: Chemical resistant gloves.
- **Eye protection**: Safety goggles.
- **Body protection**: Protective work clothing (lab coat).

Section 9 – Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pale red, clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>No characteristic odor</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Available</td>
</tr>
<tr>
<td>pH</td>
<td>7.0-7.5 Odor Threshold (PPM): N/D</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>N/D Vapor Density (AIR = 1): N/D</td>
</tr>
<tr>
<td>Boiling point</td>
<td>N/D Vapor Pressure (MMHG): &lt; 1</td>
</tr>
<tr>
<td>Flash point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammability</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Appreciable (100%)</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>
Section 10 – Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
N/A

10.6 Hazardous decomposition products
None known.

10.5 Additional information
Hazardous polymerization will not occur.

Section 11 – Toxicological Information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Ingestion, inhalation, skin and eye contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Rat LD50 Not Determined</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Contact may cause skin irritation</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Contact may cause eye irritation</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>No data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not Identified</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Section 12 – Ecological Information

| Environmental Toxicity          | No data available                           |
| Aquatic Toxicity                | No data available                           |
| Persistence and degradability   | No data available                           |
| Bioaccumulative potential       | No data available                           |
| Mobility in soil                | No data available                           |
| Results of PBT and vPvT assessment | No data available                         |
Section 13 – Disposal Considerations

Minimize waste as much as possible. Disposal must be made according to state and federal regulations.

Section 14 – Transport Information

DOT (Ground)
Not regulated

IMDG
Not regulated

IATA
Not regulated

ADR
Not regulated

ADN
Not regulated

RID
Not regulated

Section 15 – Regulatory Information

15.1 Product related hazard information: The product has been classified and marked in accordance with regulations on hazardous materials.

Section 16 – Other information

Revision Date: September 10th, 2013

To the best of our knowledge, the information contained herein is accurate. However, neither BioLegend, nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Department issuing MSDS: Safety & Environment Department
Contact: Technical Service Representative