Section 1. Chemical Product and Company Identification

Product name: Albumin Standard, 10 X 1 mL
Product No.: 0023209 0023210
Supplier: In USA: Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723
In Europe: Perbio Science Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38
Manufacturer: Pierce Biotechnology P.O. Box 117 Rockford, IL 61105 USA
MSDS#: 225
Validation Date: 11/4/2002
Print Date: 11/12/2002

Section 2. Composition, Information on Ingredients

Substance/Preparation: Preparation

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS No.</th>
<th>%</th>
<th>EC Number</th>
<th>Symbol</th>
<th>R-Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hazardous ingredient according to 29 CFR 1910.1200 Hazard Communication Standard (USA) and Directives 1999/45/EC-2001/59/EC (EU)

Section 3. Hazards Identification

United States

Emergency Overview
WARNING!
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
SKIN, EYES, STOMACH.

Routes of Entry
Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects
Slightly hazardous in case of ingestion, of inhalation.

Carcinogenic Effects Data
CARCINOGENIC EFFECTS: Classified None. by NIOSH [Sodium Chloride].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

Medical Conditions Aggravated by Overexposure:
Repeated or prolonged exposure is not known to aggravate medical condition.

Overexposure /Signs/Symptoms
Not available.

Europe

Classification
Not controlled under dsd (Europe).

Physical/chemical hazards
Not applicable.

Human health hazards
Not applicable.

Environmental hazards
Not applicable.

See Toxicological Information (section 11)

Continued on Next Page
Section 4. First Aid Measures

**Effects and symptoms**

<table>
<thead>
<tr>
<th>Effects</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Slightly hazardous in case of inhalation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Slightly hazardous in case of ingestion.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Not available.</td>
</tr>
<tr>
<td>Aggravating conditions</td>
<td>Repeated or prolonged exposure is not known to aggravate medical condition.</td>
</tr>
</tbody>
</table>

**First-Aid Measures**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Get medical attention.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.</td>
</tr>
</tbody>
</table>

**Notes to Physician**

<table>
<thead>
<tr>
<th>Notes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection of first-aiders</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 5. Fire Fighting Measures

**Flammability of the Product**

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-flammable</td>
<td></td>
</tr>
</tbody>
</table>

**Flash Points**

<table>
<thead>
<tr>
<th>Flash Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Fire Hazards in Presence of Various Substances**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Fire Fighting Media and Instructions**

<table>
<thead>
<tr>
<th>Fire Fighting Media and Instructions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Protective Clothing (Fire)**

<table>
<thead>
<tr>
<th>Protective Clothing (Fire)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Hazardous thermal (de)composition products**

<table>
<thead>
<tr>
<th>Hazardous thermal (de)composition products</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

Section 6. Accidental Release Measures

**Personal precautions**

<table>
<thead>
<tr>
<th>Personal precautions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety glasses. Lab coat.</td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Precautions and Clean-up Methods**

<table>
<thead>
<tr>
<th>Environmental Precautions and Clean-up Methods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.</td>
<td></td>
</tr>
</tbody>
</table>

**Small Spill and Leak**

<table>
<thead>
<tr>
<th>Small Spill and Leak</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.</td>
<td></td>
</tr>
</tbody>
</table>

Section 7. Handling and Storage

**Handling**

<table>
<thead>
<tr>
<th>Handling</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid breathing vapors or spray mists.</td>
<td></td>
</tr>
</tbody>
</table>

**Storage**

<table>
<thead>
<tr>
<th>Storage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep container tightly closed. Keep container in a cool, well-ventilated area.</td>
<td></td>
</tr>
</tbody>
</table>

**Intended Use**

<table>
<thead>
<tr>
<th>Intended Use</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.</td>
<td></td>
</tr>
</tbody>
</table>

**Packaging materials**

<table>
<thead>
<tr>
<th>Packaging materials</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use original container.</td>
<td></td>
</tr>
</tbody>
</table>

Continued on Next Page
Section 8. Exposure Controls/Personal Protection

*Engineering Controls* Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

**Exposure Limit Values**

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Occupational Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
</tbody>
</table>

**Personal Protection**

*Eyes* Splash goggles.

*Body* Lab coat.

*Hands* Gloves.

*Respiratory* Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

Section 9. Physical and Chemical Properties

*Physical State and Appearance* Liquid.

*Molecular Weight* Not applicable.

*pH (1% Soln/Water)* Neutral.

*Boiling/Condensation Point* The lowest known value is 100°C (212°F) (Milli-Q Water). Weighted average: 100°C (212°F)

*Melting/Freezing Point* May start to solidify at -0.1°C (31.8°F) based on data for: Milli-Q Water. Weighted average: -0.1°C (31.8°F)

*Specific Gravity* Weighted average: 1 (Water = 1)

*Vapor Pressure* The highest known value is 2.3 kPa (@ 20°C) (Milli-Q Water). Weighted average: 2.3 kPa (@ 20°C)

*Vapor Density* The highest known value is 0.62 (Air = 1) (Milli-Q Water). Weighted average: 0.62 (Air = 1)

*Evaporation Rate* 0.36 (Deionized Water) compared to (n-BUTYL ACETATE=1)

*Dispersion Properties* See solubility in water.

Continued on Next Page
**Section 10. Stability and Reactivity**

**Stability and Reactivity**

- The product is stable.
- Reacts violently with water especially when water is added to the product. Heating may cause an explosion. Keep away from heat (Sodium Azide)
- Not available.

**Conditions to avoid**

**Materials to avoid**

**Hazardous Polymerization**

Will not occur.

**Hazardous Decomposition**

Not applicable.

**Section 11. Toxicological Information**

**Toxicity to Animals**

LD50: Not available.
LC50: Not available.

**Chronic Effects on Humans**

CARCINOGENIC EFFECTS: Classified None. by NIOSH [Sodium Chloride].
Contains material which causes damage to the following organs: central nervous system (CNS).

**Other Toxic Effects on Humans**

Slightly hazardous in case of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals**

Not available.

**Special Remarks on Chronic Effects on Humans**

Not available.

**Special Remarks on Other Toxic Effects on Humans**

Not available.

**Section 12. Ecological Information**

**Mobility**

Not available.

**Persistence/degradability**

Not available.

**Bioaccumulative potential**

Not available.

**Ecotoxicity**

Not available.

**Germany water class**

VCI WGK: No products were found.

**Section 13. Disposal Considerations**

**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste Stream**

Not available.

**Consult your local or regional authorities.**

**Section 14. Transport Information**

Contact the supplier for all information regarding the proper transportation method for this material.
**Section 15. Regulatory Information**

**Label Requirements (Europe)**

This product is not classified according to the EU regulations.

**HCS Classification**

Target organ effects.

**U.S. Federal Regulations**

- TSCA 8(b) inventory: Sodium Azide; Sodium Chloride; Milli-Q Water; Sodium Chloride; Deionized Water
- TSCA 8(d) H and S data reporting: Sodium Azide
- SARA 302/304/311/312 extremely hazardous substances: Sodium Azide
- SARA 302/304 emergency planning and notification: Sodium Azide
- SARA 302/304/311/312 hazardous chemicals: Sodium Azide; Sodium Chloride
- SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Azide: immediate health hazard; Sodium Chloride: immediate health hazard, delayed health hazard

- Clean Water Act (CWA) 307: No products were found.
- Clean Water Act (CWA) 311: No products were found.
- Clean air act (CAA) 112 accidental release prevention: No products were found.
- Clean air act (CAA) 112 regulated flammable substances: No products were found.
- Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)**

Not controlled under WHMIS (Canada).

- CEPA DSL: Sodium Azide; Milli-Q Water; Sodium Chloride; Deionized Water
- CEPA NDSL: Sodium Azide

**International Regulations**

**EINECS**

Not available.

**DSCL (EEC)**

This product is not classified according to the EU regulations.

**International Lists**

- Australia (NICNAS): Sodium Azide; Milli-Q Water; Sodium Chloride; Deionized Water
- Germany water class: Sodium Azide; Sodium Chloride
- Korea (TCCL): Sodium Azide; Milli-Q Water; Sodium Chloride; Deionized Water
- Philippines (RA 6969): Sodium Azide; Milli-Q Water; Sodium Chloride; Deionized Water
- Pennsylvania RTK: Sodium Azide: (environmental hazard, generic environmental hazard)
- Florida: Sodium Azide
- Minnesota: Sodium Azide
- Massachusetts RTK: Sodium Azide
- New Jersey: Sodium Azide
- California prop. 65: No products were found.

**Section 16. Other Information**

**Hazardous Material Information System (U.S.A.)**

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>1</em></td>
<td>0</td>
<td>0</td>
<td>a</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>National Fire Protection Association (U.S.A.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

**References**

Not available.

**History of Document Changes**

Any information changes since last document version are marked with a triangle symbol.

**Intended Use**

Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Continued on Next Page
Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability 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.