Material Safety Data Sheet
Bovine Serum Albumin, Lyophilized Powder

MSDS# 92024

Section 1 - Chemical Product and Company Identification

MSDS Name: Bovine Serum Albumin, Lyophilized Powder
Catalog Numbers: 61191-0010, 61191-0100
Synonyms: None known.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalsalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 9048-46-8
Chemical Name: Bovine Serum Albumin
%
100.0
EINECS#: 232-936-2

Hazard Symbols: None listed
Risk Phrases: None listed

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Caution! May cause eye irritation. The toxicological properties of this material have not been fully investigated. This is expected to be a low hazard for usual industrial handling. Target Organs: None known.

Potential Health Effects
Eye: Contact may cause transient eye irritation.
Skin: Low hazard for usual industrial handling.
Ingestion: Low hazard for usual industrial handling. May cause allergic reaction characterized by a rash.
Inhalation: Low hazard for usual industrial handling.
Chronic:

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid if irritation develops or persists. Wash clothing before reuse. Flush skin with plenty of soap and water.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Treat symptomatically and supportively. Get medical aid immediately.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts at sufficient concentrations can form explosive mixtures with air. Combustion generates toxic fumes.

Extinguishing Media: Use water spray, dry chemical, or carbon dioxide.

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Not available
Explosion Limits: Not available

NFPA Rating: health: 1; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed.

Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine Serum Albumin</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
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</tbody>
</table>

OSHA Vacated PELs: Bovine Serum Albumin: None listed

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: light green
Odor: none reported
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Not available
Specific Gravity/Density:
  Molecular Formula: Mixture
  Molecular Weight: 0

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials: Not available
Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, oxides of nitrogen, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 9048-46-8: MT6446000
LD50/LC50: RTECS: Not available.
Carcinogenicity: Bovine Serum Albumin - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives
  Hazard Symbols: Not available
  Risk Phrases:
  Safety Phrases:
    S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)
  CAS# 9048-46-8: 0

Canada
CAS# 9048-46-8 is listed on Canada's DSL List
Canadian WHMIS Classifications: Not available
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 9048-46-8 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
CAS# 9048-46-8 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 11/07/2001
Revision #4 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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