BOVINE SERUM ALBUMIN

1. Product Identification

Synonyms: Albumins, blood serum; BSA CAS No.: 9048-46-8 Molecular Weight: Not applicable to mixtures. Chemical Formula: Not applicable.

Company Information: LEONID CHEMICALS 62/A-2 1st Stage, Yeshwanthpur Industrial Suburb Ashokpuram School Road Bangalore-560 022, Karnataka, INDIA Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Bovine Serum Albumin	9048-46-8	100%	Yes

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight Flammability Rating: 1 - Slight Reactivity Rating: 0 - None Contact Rating: 1 - Slight Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES



Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:
No adverse health effects expected from inhalation.
Ingestion:
Large doses may cause gastro-intestinal upset.
Skin Contact:
No adverse effects expected.
Eye Contact:
No adverse effects expected but dust may cause mechanical irritation.
Chronic Exposure:
No information found.
Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty. Ingestion: If large amounts were swallowed, give water to drink and get medical advice. Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops. Eye Contact: Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.

Explosion:

Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:



In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.



Refrigerate. Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: None established. Ventilation System: Not expected to require any special ventilation. Personal Respirators (NIOSH Approved): Not expected to require personal respirator usage. Skin Protection: Wear protective gloves and clean body-covering clothing. Eye Protection: Safety glasses.

9. Physical and Chemical Properties

Appearance: Pale white flakes. Odor: Characteristic odor.



Solubility: Soluble in water. **Specific Gravity:** No information found. pH: No information found. % Volatiles by volume @ 21C (70F): No information found. **Boiling Point:** No information found. **Melting Point:** No information found. Vapor Density (Air=1): No information found. Vapor Pressure (mm Hg): No information found. **Evaporation Rate (BuAc=1):** No information found.

10. Stability and Reactivity

Stability:

Category

Stable under ordinary conditions of use and storage. Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition. Hazardous Polymerization: Will not occur. Incompatibilities: Strong acids and oxidizing agents. Conditions to Avoid: Moisture, heat, flames, ignition sources and incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.



12. Ecological Information

Environmental Fate: No information found. **Environmental Toxicity:** No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

ТΜ

14. Transport Information

Not regulated.

15. Regulatory Information -----\Chemical Inventory Status - Part 1 Ingredient TSCA EC Japan Australia _____ Bovine Serum Albumin (9048-46-8) Yes Yes No Yes -----\Chemical Inventory Status - Part 2\--------Canada--Ingredient Korea DSL NDSL Phil. -----_ _ _ ____ ____ ____ Bovine Serum Albumin (9048-46-8) No Yes No Yes



-----\Federal, State & International Regulations - Part 1\-------SARA 302------SARA 313----Ingredient RO TPO List Chemical Catg. _____ _ _ _ _ _ _ _ _ _____ Bovine Serum Albumin (9048-46-8) No No No No -----\Federal, State & International Regulations - Part 2\-------RCRA--TSCA-Ingredient CERCLA 261.33 8(d) _____ ____ ____ ____ Bovine Serum Albumin (9048-46-8) No No No Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: No Chronic: No Fire: No Pressure: No Reactivity: No (Pure / Solid)

Australian Hazchem Code: None allocated.

Poison Schedule: None allocated.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 0 Flammability: 1 Reactivity: 0 Label Hazard Warning: As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing. Label Precautions: None. Label First Aid: Not applicable. Product Use: Laboratory Reagent. Revision Information: No Changes.

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information



currently available to us. However, we make no warranty of merchantability 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 way 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.



