



## MATERIAL SAFETY DATA SHEET

## Section I – Product Information

|   |                                   |                            |                       |
|---|-----------------------------------|----------------------------|-----------------------|
| <b>Product Name or Identity:</b>          | <b>Brain-Heart Infusion Broth</b> |                            |                       |
| <b>Manufacturer's Name:</b>               | Acumedia Manufacturers, Inc.      | <b>Emergency Phone No.</b> | 517/372-9200          |
|   | 740 East Shiawassee               | <b>Fax No.:</b>            | 517/372-2006          |
|   | Lansing, Michigan 48912           | <b>e-mail:</b>             | foodsafety@neogen.com |
| <b>Date Prepared or Revised:</b> 10/10/04 |                                   |                            |                       |

## Section II – Hazardous Ingredients / Identity Information

| <b>Hazardous Components:</b><br>(Specific Chemical Identity: Common Names) | <b>OSHA PEL</b><br>(Permissible<br>Exposure Limits) | <b>ACGIH TLV</b><br>(Threshold<br>Limit Value) | <b>Toxicity Data LD<sub>50</sub></b> |
|--|---|--|--------------------------------------|
| Sodium Chloride, NaCl, Common salt   | N/A   | N/A  | ORL-RAT, 3000 mg/kg                  |
| Sodium Phosphate   | N/A   | N/A  | ORL-RAT, 17000 mg/kg                 |
|  |   |  |                                      |

## Section III – Physical Characteristics

|   |   |
|---|---|
| <b>Boiling Point:</b> 1413°C (Sodium Chloride)  | <b>Specific Gravity</b> (H <sub>2</sub> O = 1): 2.16 g/cm <sup>3</sup> (Sodium Chloride)<br>1.67 g/cm <sup>3</sup> (Sodium Phosphate) |
| <b>Vapor Pressure (mm Hg.):</b> 1.0 @ 865°C (Sodium Chloride)   | <b>Melting Point:</b> 804°C (Sodium Chloride)   |
| <b>Vapor Density</b> (AIR = 1): 4.9g/l (Sodium Phosphate)   | <b>Evaporation Rate</b> (Butyl Acetate = 1): N/A  |
| <b>Solubility in Water:</b> 35.7 g/100g at 0°C (Sodium Chloride), Soluble (Sodium Phosphate.)   |   |
| <b>Appearance and Odor:</b> Colorless crystals or white powder. Characteristic odor. (Sodium Chloride).<br>White powder, odorless (Sodium Phosphate). |   |

## Section IV – Fire and Explosion Hazard Data

|   |   |
|---|---|
| <b>Flash Point</b> (Method Used): Not applicable  | <b>Flammable Limits:</b> LEL (Lower Explosive Limit) - N/A<br>UEL (Upper Explosive Limit) - N/A |
| <b>Extinguishing Media:</b> Suitable extinguishing agents. CO <sub>2</sub> , extinguishing powder, or water spray.  |   |
| <b>Special Fire Fighting Procedures:</b> Fight larger fires with water or alcohol resistant foam. Firefighters should wear protective equipment and self-contained breathing apparatus. |   |
| <b>Unusual Fire and Explosion Hazards:</b> During heating or in case of fire, poisonous gases are produced.   |   |

## Section V – Reactivity Data

|   |                |   |  |
|---|----------------|---|--|
| <b>Stability:</b>   | Unstable       |   | Conditions to Avoid: Stable under ordinary conditions of use and storage.<br>Hygroscopic. Protect from moisture. |
|   | Stable         | X |  |
| <b>Incompatibility</b> (Materials to Avoid): Reacts with acids, alkalis, bases, oxidizing agents, Lithium, and Bromine trifluoride.                               |                |   |  |
| <b>Hazardous Decomposition or Byproducts:</b> Phosphorous oxides and Sodium oxides. When heated to above 801°C it emits toxic fumes of chloride and sodium oxide. |                |   |  |
| <b>Hazardous Polymerization:</b>  | May Occur      |   | Conditions to Avoid: Dust generation, exposure to air, excess heat, and incompatible materials.                  |
|   | Will Not Occur | X |  |

| Section VI – Health Hazard Data   |  |  |                    |
|---|--|--|--------------------|
| <b>Route(s) of Entry:</b>   | Inhalation? Yes  | Skin? Yes  | Ingestion? Yes     |
| <b>Health Hazards:</b><br>(Acute and Chronic)   | Irritant. Irritating to eyes, respiratory system, and skin.  |  |                    |
| <b>Carcinogenicity:</b>   | NTP? No<br>(National Toxicology Program)   | IARC Monographs? No<br>(International Agency for Research in Cancer) | OSHA Regulated? No |
| <b>Signs and Symptoms of Exposure:</b> Irritant to skin and mucous membranes. Irritating effect to eye. May cause irritation if absorbed through the skin. Phosphates are slowly and incompletely absorbed when ingested. Symptoms may include vomiting, lethargy, diarrhea, and cardiac effects. Sodium Phosphate is a corrosive material and can cause burns. |  |  |                    |
| <b>Medical Conditions Generally Aggravated by Exposure:</b> Chronic exposure of Sodium Phosphate may sequester calcium and cause calcium phosphate deposits in the kidneys. Can produce delayed pulmonary edema. Effects may be delayed.  |  |  |                    |
| <b>Emergency / First Aid Procedures:</b>  | Ingestion: If swallowed, seek medical attention.   |  |                    |
|   | Inhalation: Supply fresh air or oxygen. Seek medical attention.                                    |  |                    |
|   | Eye Contact: Rinse opened eye for at least 15 minutes under running water. Seek medical attention. |  |                    |
|   | Skin Contact: Wash with plenty of soap and water for 15 minutes. Seek medical attention.           |  |                    |

| Section VII – Precautions for Safe Handling and Use  |  |
|--|--|
| <b>Accidental Release Measures:</b> Ventilate spill area. Wear suitable protective clothing. Wipe up with damp sponge or mop. Avoid inhalation, contact with eyes, skin, and clothing. |  |
| <b>Waste Disposal Method:</b> Dispose in accordance with all applicable federal, state, and local environmental regulations.   |  |
| <b>Handling and Storing:</b> Keep container tightly closed. Protect from moisture. Suitable for any general chemical storage area. Store away from oxidizing agents.                   |  |
| <b>Other Precautions:</b> Prevent formation of dust. Ensure good ventilation / exhaustion at the workplace. Avoid prolonged or repeated exposure.                                      |  |

| Section VIII – Control Measures   |                             |   |
|---|-----------------------------|---|
| <b>Respiratory Protection</b> (Specify Type): None required where adequate ventilation conditions exist. If airborne concentration is high, use an appropriate respirator or dust mask.   |                             |   |
| <b>Ventilation:</b>   | Local Exhaust: 50 – 100 CFM | Special: N/A                                      |
|   | Mechanical (General): N/A   | Other: N/A  |
| <b>Protective Gloves:</b> Proper disposable gloves  |                             | Eye Protection: Chemical resistant safety goggles |
| <b>Other Protective Clothing or Equipment:</b> Uniform, lab coat, or disposable lab wear.   |                             |   |
| <b>Work / Hygienic Practices:</b> Follow the usual precautionary measures for handling chemicals / powder. Keep away from food and beverages. Immediately remove all soiled and contaminated clothing. Avoid contact with eyes, skin, and clothing. |                             |   |

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