



## MATERIAL SAFETY DATA SHEET

Section I – Product Information			
<b>Product Name or Identity:</b>	Buffered Listeria Enrichment Broth		
<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> 10/11/04			

Section II – Hazardous Ingredients / Identity Information			
Hazardous Components: (Specific Chemical Identity: Common Names)	OSHA PEL (Permissible Exposure Limits)	ACGIH TLV (Threshold Limit Value)	Toxicity Data LD <sub>50</sub>
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
Potassium Phosphate	N/A	N/A	SKN-RBT, >4640 mg/kg
Cycloheximide	N/A	N/A	ORL-RAT, 2 mg/kg

Section III – Physical Characteristics	
<b>Boiling Point:</b> 1413°C (Sodium Chloride) 2 g/l (Cycloheximide)	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 2.16 g/cm <sup>3</sup> (Sodium Chloride) 1.67 g/cm <sup>3</sup> (Sodium Phosphate)
<b>Vapor Pressure (mm Hg.):</b> 865°C (Sodium Chloride)	<b>Melting Point:</b> 119°C (Cycloheximide), 804°C (Sodium Chloride) 240°C (Sodium Phosphate). >465°C (Potassium Phosphate)
<b>Vapor Density (AIR = 1):</b> 4.9 g/l (Sodium Phosphate)	<b>Evaporation Rate (Butyl Acetate = 1):</b> N/A
<b>Solubility in Water:</b> 35 g/100g at 0°C (Sodium Chloride), Soluble (Sodium Phosphate) 150 g/100g cold water (Potassium Phosphate).	
<b>Appearance and Odor:</b> White powder. Characteristic odor. (Sodium Chloride), (Nalidixic Acid), Soluble (Sodium Phosphate) White crystals or powder, odorless (Potassium Phosphate), White, crystalline powder w/musky odor. (Cycloheximide)	

Section IV – Fire and Explosion Hazard Data	
<b>Flash Point (Method Used):</b> Not applicable	<b>Flammable Limits:</b> LEL (Lower Explosive Limit) - N/A UEL (Upper Explosive Limit) - N/A
<b>Extinguishing Media:</b> Use sand, carbon dioxide, or powdered extinguishing agent. Never use water.	
<b>Special Fire Fighting Procedures:</b> Fight larger fires with alcohol resistant foam. Firefighters should wear protective equipment and self-contained breathing apparatus. Remove contaminated clothing immediately.	
<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: Protect from light and moisture.
	Stable	X	
<b>Incompatibility (Materials to Avoid):</b> Reacts with acids, alkalis and oxidizing agents.			
<b>Hazardous Decomposition or Byproducts:</b> Acids, alkalis, oxidizing agents, Phosphorus oxides (POx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) and Nitrogen oxides (NOx).			
<b>Hazardous Polymerization:</b>	May Occur		Conditions to Avoid: Decomposes by alkalis.
	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> (Acute and Chronic)	Toxic. Toxic if swallowed, inhaled, or absorbed through the skin. Cycloheximide may be fatal if swallowed. Possible risk of harm to the unborn child. Irritating to eyes, skin, and respiratory system.		
<b>Carcinogenicity:</b>	NTP? No (National Toxicology Program)	IARC Monographs? No (International Agency for Research in Cancer)	OSHA Regulated? No
<b>Signs and Symptoms of Exposure:</b> Irritant to skin, eyes, and mucous membranes. Allergic reactions in hypersensitive persons. 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> Possible risk of irreversible effects. Symptoms of poisoning may even occur after several hours; therefore medical observation is necessary for at least 48 hours after the accident. Irritation, nausea, vomiting diarrhea, tremors, salivation and melena are signs of overexposure of Cycloheximide. Overexposure may cause reproductive disorder based on test with laboratory animals. Chronic exposure of Sodium Phosphate may sequester calcium and cause calcium phosphate deposits in the kidneys.			
<b>Emergency / First Aid Procedures:</b>	General Information: Immediately remove contaminated clothing. Remove breathing apparatus only after contaminated clothing have been completely removed. In case of irregular breathing or respiratory arrest, provide artificial respiration.		
	Ingestion: If swallowed, seek medical attention immediately.		
	Inhalation: Supply fresh air or oxygen. Seek medical attention immediately. In case of unconsciousness, place patient on side position for transportation. If required, provide artificial respiration.		
	Eye Contact: Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating eyelids with fingers. Seek medical attention.		
	Skin Contact: Wash with plenty of soap and water for at least 15 minutes.		

Section VII – Precautions for Safe Handling and Use
<b>Accidental Release Measures:</b> Ventilate spill area. Wear suitable protective clothing. Avoid inhalation, contact with eyes, skin, and clothing. Keep respiratory protective device available. Remove contaminated clothing immediately. In case of fire, use sand carbon dioxide or powdered extinguishing agent. Never use water.
<b>Waste Disposal Method:</b> Dispose in accordance with all applicable federal, state, and local environmental regulations. This product should be disposed of in a special hazardous waste collection container.
<b>Handling and Storing:</b> Keep container tightly closed. Protect from moisture. Store away from oxidizing, acidic agents, and alkali material (caustic). Keep receptacle tightly sealed. Store only in the original receptacle.
<b>Other Precautions:</b> Prevent formation of dust. Do not breathe dust. Ensure good ventilation / exhaustion at the workplace. Prevent prolonged or repeated exposure.

Section VIII – Control Measures		
<b>Respiratory Protection (Specify Type):</b> 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> Long-sleeved lab coat, safety shower and eye wash recommended.		
<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.		

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Acumedia shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.