



MATERIAL SAFETY DATA SHEET

Section I – Product Information			
Product Name or Identity:	Tetrathionate Broth Base		
Manufacturer's Name:	Acumedia Manufacturers, Inc.	Emergency Phone No.:	517/372-9200
	740 East Shiawassee	Fax No.:	517/372-2006
	Lansing, Michigan 48912	e-mail:	foodsafety@neogen.com
Date Prepared or Revised: 10/10/04			

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 ₅₀
Sodium Thiosulfate /Sodium Hyposulfite	N/A	N/A	IPR-MUS, 5200 mg/kg
Calcium Carbonate	15 mg/m ³ (total dust)	10 mg/m ³ (inhalable particles)	ORL-RAT, 6450 mg/kg
Bile Salts No. 3	N/A	N/A	N/A

Section III – Physical Characteristics	
Boiling Point: 7100°C (Sodium Thiosulfate)	Specific Gravity (H₂O = 1): 1.69 g/cm (Sodium Thiosulfate) 2.93 g/cm (Calcium Carbonate)
Vapor Pressure (mm Hg.): N/A	Melting Point: >100°C (Sodium Thiosulfate) 800°C (Calcium Carbonate)
Vapor Density (AIR = 1): N/A	Evaporation Rate (Butyl Acetate = 1): N/A
Solubility in Water: 50 g/100 ml at 4 °C (Sodium Thiosulfate), 0.001 gm in 100 mL water (Calcium Carbonate)	
Appearance and Odor: Colorless crystals or white powder. (Sodium Thiosulfate), White powder, odorless (Calcium Carbonate).	

Section IV – Fire and Explosion Hazard Data	
Flash Point (Method Used): Not applicable	Flammable Limits: LEL:(Lower Explosive Limits) - N/A UEL (Upper Explosive Limits) - N/A
Extinguishing Media: Suitable extinguishing agents. CO ₂ , extinguishing powder, or water spray.	
Special Fire Fighting Procedures: Fight larger fires with water or alcohol resistant foam. Firefighters should wear protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.	
Unusual Fire and Explosion Hazards: During heating or in case of fire poisonous gases are produced. Closed containers exposed to heat may explode.	

Section V – Reactivity Data			
Stability:	Unstable		Conditions to Avoid: Stable under ordinary conditions of use and storage.
	Stable	X	
Incompatibility (Materials to Avoid): Incompatible with metal nitrate, sodium nitrite, iodine, acids, lead, mercury, fluorine, and silver salts.			
Hazardous Decomposition or Byproducts: Burning may produce sulfur oxides. When heated to decomposition, emits Calcium oxide fumes and liberates Carbon dioxide.			
Hazardous Polymerization:	May Occur		Conditions to Avoid: Heat and incompatible materials.
	Will Not Occur	X	

Section VI – Health Hazard Data			
Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards: (Acute and Chronic)	Irritant. Irritating to eyes, respiratory system, and skin.		
Carcinogenicity:	NTP? No (National Toxicology Program)	IARC Monographs? No (International Agency for Research in Cancer)	OSHA Regulated? No
Signs and Symptoms of Exposure: May cause irritation to respiratory tract. Symptoms may include coughing and shortness of breath if Sodium Thiosulfate is inhaled. Low level of toxicity by ingestion. Diarrhea may occur by ingestion of large quantities.			
Medical Conditions Generally Aggravated by Exposure: Chronic exposure may cause skin irritation. Excessive concentrations of a nuisance dust may cause nuisance condition such as coughing, sneezing, and nasal irritation. Excessive oral doses of Calcium carbonate may produce alkalosis and hypercalcemia.			
Emergency / First Aid Procedures:	Ingestion: If swallowed and the person is conscious, immediately give large amounts of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person.		
	Inhalation: If a person breathes in large amounts, move the exposed person to fresh air. Seek medical attention.		
	Eye Contact: Immediately flush with plenty of water for at least 15 minutes. Seek medical attention.		
	Skin Contact: Immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention.		

Section VII – Precautions for Safe Handling and Use	
Accidental Release Measures: Ventilate area of leak or spill. Wear suitable protective clothing. Take up with sand or other noncombustible absorbent material and place into container for later disposal. Flush spill area with water	
Waste Disposal Method: Dispose of in accordance with all applicable federal, state, and local environmental regulations.	
Handling and Storing: Keep container tightly closed, in a cool, dry ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues.	
Other Precautions: Ensure good ventilation / exhaustion at the workplace. Avoid prolonged or repeated exposure.	

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

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