



## MATERIAL SAFETY DATA SHEET

## Section I – Product Information

<b>Product Name or Identity:</b>	TCBS Agar		
<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> (Specific Chemical Identity: Common Names)	<b>OSHA PEL</b> (Permissible Exposure Limits)	<b>ACGIH TLV</b> (Threshold Limit Value)	<b>Toxicity Data LD<sub>50</sub></b>
Sodium Thiosulfate, Sodium hyposulfite	N/A	N/A	IPR-MUS, 5200 mg/kg
Ferric Ammonium Citrate	N/A	1 mg/m <sup>3</sup>	N/A
Sodium Chloride, NaCl, common salt	N/A	N/A	ORL-RAT, 3000 mg/kg
Sodium Citrate	N/A	N/A	N/A
Oxbile	N/A	N/A	N/A

## Section III – Physical Characteristics

<b>Boiling Point:</b> 7100°C (Sodium Thiosulfate), 1413°C (NaCl)	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 1.7 (Sodium Citrate), 2.16 (NaCl)
<b>Vapor Pressure (mm Hg.):</b> 865°C (NaCl)	<b>Melting Point:</b> >100°C (Sodium Thiosulfate), 150°C (Sodium Citrate) 804°C (NaCl)
<b>Vapor Density (AIR = 1):</b> 1.667 g/cm (Sodium Thiosulfate)	<b>Evaporation Rate (Butyl Acetate = 1):</b> N/A
<b>Solubility in Water:</b> 50 g/100 ml water (Sodium Thiosulfate), 72 g/ 100 g of water (Sodium Citrate), 35 g/ 100 g at 0°C (NaCl)	
<b>Appearance and Odor:</b> Clear liquid. (Sodium Thiosulfate), Green crystals, solid. (Ferric Ammonium Citrate) White crystals, odorless (Sodium Citrate), White powder, characteristic odor (NaCl).	

## 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> 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. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.	
<b>Unusual Fire and Explosion Hazards:</b> During heating or in case of fire, poisonous gases are produced. Closed containers exposed to heat may explode. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.	

## Section V – Reactivity Data

<b>Stability:</b>	Unstable		Conditions to Avoid: Keep away from heat and light. Decomposed by heat; reduces to ferrous salt by light. Stability limited in solution.
	Stable	X	
<b>Incompatibility (Materials to Avoid):</b> Incompatible with strong acids, oxidizers, iodine, mercury, sodium nitrate and halogens. Reacts with acids to release sulfur dioxide.			
<b>Hazardous Decomposition or Byproducts:</b> Carbon dioxide (CO <sub>2</sub> ), Sulfur oxides (SO <sub>x</sub> ), Nitrogen oxides (NO <sub>x</sub> ), Ammonia (NH <sub>4</sub> ) and Carbon monoxide (CO) and Chlorine (Cl).			
<b>Hazardous Polymerization:</b>	May Occur		Conditions to Avoid: Heat, dust, 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> (Acute and Chronic)	Irritant. Irritating to eyes, respiratory system, and skin.		
<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> If inhaled, may result in coughing and shortness of breath. Low level of toxicity by ingestion. Diarrhea may occur by ingestion of large quantities. May be harmful if swallowed or inhaled.			
<b>Medical Conditions Generally Aggravated by Exposure:</b> Chronic exposure may cause skin effects.			
<b>Emergency / First Aid Procedures:</b>	Ingestion: If swallowed, seek medical attention immediately.		
	Inhalation: Supply fresh air or oxygen, seek medical attention. In case of unconsciousness, place patient on side position for transportation.		
	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 at least 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. Flush spill area with water, wipe up with damp sponge or mop. Avoid 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, stored in a cool, dry ventilated area. Protect from moisture. Protect container against physical damage. Store away from oxidizing agents. Do not store together with acids.
<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 (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> 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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