



# MATERIAL SAFETY DATA SHEET

## Section 1. Company Identification and Product Information

<b>Product Name or Identity:</b>	D/E Neutralizing Broth with Tween		
<b>Manufacturer's Name:</b>	Acumedia Manufacturers, Inc.	<b>Emergency Phone No.:</b>	517/372-9200
	740 East Shiawassee	<b>Fax No.:</b>	517/372-0108
	Lansing, Michigan 48912	<b>e-mail:</b>	foodsafety@neogen.com
<b>Date Prepared or Revised:</b>	January 2008		

## Section 2. Composition / Information on Hazardous Ingredients

Hazardous Components Specific Chemical Identity:	CAS-No.	%	EG-Number	Hazard Symbol
Sodium Thioglycollate	367-51-1	2.6%	206-696-4	Xn (Harmful)
Sodium Thiosulfate	7772-98-7	15.4%	231-867-5	Xi (Irritant)
Sodium Bisulfite	7631-90-5	6.4%	N/A	Xn (Harmful)

## Section 3. Health Hazard Identification

<b>Route(s) of Entry:</b>	Inhalation? Yes	Skin? Yes	Ingestion? Yes
<b>Health Hazards:</b> (Acute and Chronic)	HARMFUL. May be harmful if inhaled or absorbed through the skin. Irritating to eyes, respiratory system, and skin. May cause allergic reaction and breathing difficulties in sensitive individuals.		
<b>Carcinogenicity:</b>	IARC Monographs? <b>Group 3, Sodium Bisulfite</b> The agent is not classifiable as to carcinogenicity in humans. (International Agency for Research in Cancer)		OSHA Regulated? No

**Signs and Symptoms of Exposure:** Irritant if inhaled, coughing possible and breathing difficulties may be observed. Symptoms of ingestion can include nausea and vomiting. Contact with eye causes irritation, redness, and pain.

**Medical Conditions Generally Aggravated by Exposure:** Chronic exposure can cause dermatitis. If ingested, large doses can cause vomiting, diarrhea, and prostration. Persons with pre-existing skin disorders or eye problems, may be more susceptible to the effects of the substance. Certain individuals with preexisting respiratory conditions such as asthma may experience hypersensitivity to sulfites and sulfur dioxides. The symptoms include bronchoconstriction, bronchospasm, gastrointestinal disturbances, hypotension, tingling sensation, and shock.

## Section 4. First Aid Measures

<b>Emergency / First Aid Procedures:</b>	Ingestion: If swallowed, wash out mouth with water, provided person is conscious. Never give anything by mouth to an unconscious person. Seek medical attention.
	Inhalation: If inhaled, supply fresh air or oxygen. Seek medical attention. If not breathing, apply artificial respiration. If breathing is difficult, give oxygen.
	Eye Contact: Rinse opened eye for at least 15 minutes under running water, lifting lower and upper eyelids occasionally. Seek medical attention.
	Skin Contact: Remove contaminated clothing. Immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Wash clothing before reuse.

## Section 5. Fire and Explosion Hazard Data

<b>Flash Point (Method Used):</b> N/A	<b>Flammable Limits:</b> LEL – N/A UEL – N/A
<b>Extinguishing Media:</b> Use alcohol foam, dry chemical, or carbon dioxide. Water may be ineffective.	
<b>Special Fire Fighting Procedures:</b> 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. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.	

### Section 6. Accidental Release Measures

**Personal Precautions:** Shut off all sources of ignition, ventilate spill area. Wear suitable protective clothing, gloves, and eye protection. Wear self-containing breathing apparatus, rubber boots, and heavy rubber gloves. Place contaminated material in a chemical waste container.

**Environmental Precautions:** Prevent dispersion of material. Do not allow to enter drains or water courses. Water runoff can cause environmental damage.

**Clean-up Methods:** Contact safety officer and ventilate area. Absorb spill with inert material, including dry-lime, sand, or soda ash, then place into a chemical waste container using non-sparking tools. Wash spill site.

### Section 7. Handling and Storage

**Handling:** Protect against physical damage. Ensure good ventilation / exhaustion. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched.

**Storage:** Keep container tightly closed. Keep away from incompatible material. Storage area should be cool, dry and well ventilated. Containers of this material may be hazardous when empty since they retain product residues.

**Other Precautions:** Remove contaminated clothing immediately. Ensure good ventilation. Prevent dust formation.

### Section 8. Exposure Controls / Personal Protection

**OES:** N/A

**ACGIH TLV:** 5 mg/m<sup>3</sup> (Sodium Bisulfite)

**Engineering Measures:** Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Proper ventilation, safety shower, and eye bath required.

**Respiratory Protection (Specify Type):** In the event of possible spill / exposure, use dust mask to EN 149 FFP2S.

**Ventilation:** Local Exhaust: 50 – 100 CFM

**Special:** Safety shower and eye wash.

**Protective Gloves:** Compatible chemical-resistant gloves.

**Eye Protection:** Safety glasses or chemical goggles to EN 166, 167, and 168.

**Other Protective Clothing or Equipment:** Uniform, lab coat, or disposable lab wear.

**Work / Hygienic Practices:** Follow the usual precautionary measure for handling chemicals / powder. Keep away from food and beverages. Immediately remove all soiled and contaminated clothing. Avoid contact with eyes, skin, and clothing.

### Section 9. Physical and Chemical Properties

**Boiling Point:** > 100 °C (Sodium Thiosulfate)

**Specific Gravity:** 1.75 g/cm<sup>3</sup> (Sodium Thiosulfate) 1.32 g.cm<sup>3</sup> (Sodium Bisulfite)

**Vapor Pressure:** N/A

**Melting Point:** 48°C (Sodium Thiosulfate), 300°C (Sodium Thioglycollate)  
150°C (Sodium Bisulfite)

**Vapor Density (AIR = 1):** N/A

**Solubility in Water:** 79 g/ 100 mL water (Sodium Thiosulfate)  
114 g / L at 20°C (Sodium Thioglycollate), Soluble (Sodium Bisulfite)

**Appearance and Odor:** White/colorless powder, odorless (Sodium Thiosulfate)

Coarse white granules, slight odor (Sodium Bisulfite), Powder, faintly beige (Sodium Thioglycollate).

### Section 10. Stability and Reactivity

**Stability:**

Unstable

Stable

X

Conditions to Avoid: Stable under recommended storage conditions. Protect from air and moisture.

**Incompatibility (Materials to Avoid):** Incompatible with strong oxidizing agents, halogens, alkaloids, and strong acids.

**Hazardous Decomposition or Byproducts:** Sodium oxides, Sulfur oxides, Hydrogen oxides, Carbon oxides, and Hydrogen chloride gas.

**Hazardous Polymerization:**

May Occur

Will Not Occur

X

Conditions to Avoid: Moisture and incompatible materials.

**Section 11. Toxicological Information**

<b>LD<sub>50</sub>:</b> IPR-MUS, 5200 mg/kg (Sodium Thiosulfate) <b>LD<sub>50</sub>:</b> ORL-MSE, 504 mg/kg (Sodium Thioglycollate)	<b>LD<sub>50</sub>:</b> ORL-RAT, 2000 mg/kg, Investigated as tumorigen and mutagen, (Sodium Bisulfite)
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**Section 12. Ecological Information****Ecotoxicity Tests:** LC<sub>50</sub>: 24,000 mg/L – 96 hours, *Gambusia affinis* (Mosquito fish) (Sodium Thiosulfate)**Section 13. Disposal Considerations****Waste Disposal Method:** Dispose in accordance with all applicable federal, state, and local environmental regulations. Keep waste separate. Contact a licensed professional waste disposal service to dispose of this material if questions arise. Do not allow product to reach ground water, water bodies, or sewage system.**Container Information:** Do not remove labels from containers until they have been cleaned.**Section 14. Transport Information**

<b>Sodium Thiosulfate:*</b>	<b>Sodium Thioglycollate:**</b>	<b>Sodium Bisulfite:**</b>
UN # --- Class:-- Packing Group: -- Hazard Class: -- IATA: Non-Hazardous for air transport *This chemical is not regulated for transportation and considered non-hazardous for transport.	UN #: 3335 Class: 9 Aviation regulated solid.  *This product is classified under CFR 49, Part 173, Section173.4, small quantity exceptions. The gross mass of the completed package does not exceed 29 kg (64 pounds) of 100% pure Sodium Thioglycollate.	UN # 3077 Class: 9 Packing Group:III Hazard Class: Environmentally hazardous, solid, n.o.s. IATA: Non-Hazardous for air transport ** This product is classified under CFR 49, Part 173, Section173.4, small quantity exceptions. The gross mass of the completed package does not exceed 29 kg (64 pounds) of 100% pure Sodium Bisulfite.

**Section 15. Regulatory Information****EU Regulations, Hazard Symbol(s):****Sodium Thioglycollate, Sodium Bisulfite:** Xn (Harmful)**Sodium Thiosulfate:** Xi (Irritant)**Risk Phrases:****Sodium Thioglycollate:** R 36 / 37 / 38, Irritating to eyes, respiratory system, and skin.**Sodium Thiosulfate:** R 36 / 37 / 38, Irritating to eyes, respiratory system, and skin.**Sodium Bisulfite:** R 22 / 31, Harmful if swallowed. Contact with acids liberates toxic gas.**Safety Phrases:****Sodium Thioglycollate:** S 24 / 25 / 36 / 37 / 39 / 45, Avoid contact with skin and eyes. Wear suitable protective clothing, gloves, and eye protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**Sodium Thiosulfate:** S / 26 / 36 / 37 / 39 / 45, In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**Sodium Bisulfite:** S 25 / 46, Avoid contact with eyes. If swallowed, seek medical advice immediately and show this container or label.**Section 16. Other Information**

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