1. PRODUCT DESCRIPTION

Product Name: Specimens in Carosafe®
Product Code(s): Various
Size: Various
Chemical Name: Product is a mixture
CAS Number: See section 2
Formula: See section 2
Synonyms: None
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principal Hazardous Components:
- Propylene Glycol (CAS# 57-55-6)
- 2-amino-2-ethyl-1,3-propanediol (CAS# 115-70-8)
- Ethylene Glycol Phenyl Ether (CAS# 122-99-6)

The specimen will contain some residual formaldehyde (CAS# 50-00-0) from the fixation process. The amount of formaldehyde present is specific to the type of specimen and will vary with time.

TLV and PEL units:
- Propylene Glycol: N/A
- 2-amino-2-ethyl-1,3-propanediol: N/A
- Ethylene Glycol Phenyl Ether: N/A
- Formaldehyde: ACGIH-TLV: 0.3 ppm
  - OSHA-PEL: 0.75 ppm

3. HAZARD IDENTIFICATION

Emergency Overview: Do not take internally. Can irritate eyes and skin. Vapor of some components can be irritating if inhaled.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
- Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
- Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
- Ingestion - Do not induce vomiting. If swallowed, if conscious, give plenty of water immediately and call a physician or poison control center. Never give anything by mouth to an unconscious person.
- Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): N/A
NFPA Rating (for propylene glycol):
- Health: 0
- Flammability: 1
- Reactivity: 0

Extinguisher Media:
- Use dry chemical, CO2 or appropriate foam.
MATERIAL SAFETY DATA SHEET

Flammable Limits in Air % by Volume: N/A
Autoignition Temperature: N/A
Special Firefighting Procedures:
Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Under intense heat, components of this mixture may produce hazardous decomposition products, give off irritating vapors, and give off heavy smoke and flammable vapors.

6. SPILL OR LEAK PROCEDURES
Steps to be Taken in Case Material is Released or Spilled: Use appropriate personal protective equipment during cleanup. Containerize for disposal. Decontaminate clothing and spill area with detergent and flush with copious amounts of water.

7. SPECIAL PRECAUTIONS
Precautions to be Taken in Handling or Storing: Avoid contact with skin, eyes and clothing. Store in a cool, dry, well-ventilated area below 120 F.
Other Precautions: Avoid breathing vapors.

8. SPECIAL PROTECTION INFORMATION
Respiratory Protection (Specify Type): None needed under normal conditions of use.
Ventilation:
Local Exhaust: Yes
Mechanical (General): Yes
Special: No
Other: No
Protective Gloves:
Rubber, neoprene, PVC, or equivalent.
Eye Protection:
Splash proof chemical safety goggles should be worn at all times.
Other Protective Clothing or Equipment:
Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA
Molecular Weight: Does not apply. Product is a mixture.
Melting Point: No data available
Boiling Point: No data available
Vapor Pressure: No data available
Vapor Density (Air=1): No data available
Specific Gravity (H2O=1): >1
Percent Volatile by Volume: No data available
Evaporation Rate (H2O=1): No data available
Solubility in Water: Complete
Appearance and Odor: Colorless, odorless solution

10. REACTIVITY DATA
Stability: Stable
Conditions to Avoid: Temperatures above 425 F, flame
Incompatibility (Materials to Avoid): Water reactive materials, strong oxidizers, copper, brass, aluminum, magnesium, lead, zinc, strong bases
Hazardous Decomposition Products: If heated to decomposition, oxides of carbon and nitrogen may be evolved.
**MATERIAL SAFETY DATA SHEET**

**Revised:** 05/15/08  
**Specimens in Carosafe Replaces:** 05/09/08  
**Carolina Biological Supply Company Printed:** 03/16/09

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**Hazardous Polymerization:** Will not occur

### 11. TOXICITY DATA

**Toxicity Data:**
- Propylene Glycol: Oral Rat LD50: 20,000 mg/kg
- Formaldehyde: Oral Rat LD50: 500 mg/kg

**Effects of Overexposure:**
- **Acute:** See section 3
- **Chronic:** None of the components of Carosafe are listed as causing cancer. Mutation data, reproductive data, and tumorigenic data cited for formaldehyde. Formaldehyde is listed as an ACGIH suspected human carcinogen and as a NTP anticipated human carcinogen.
- **Conditions Aggravated by Overexposure:** N/A
- **Target Organs:** N/A
- **Primary Route(s) of Entry:** Ingestion, skin, eye contact

### 12. ECOLOGICAL DATA

**EPA Waste Numbers:** N/A

### 13. DISPOSAL INFORMATION

**Waste Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

### 14. TRANSPORT INFORMATION

Not regulated for transport

### 15. REGULATORY INFORMATION

**WARNING:** This product contains formaldehyde, a material known to the state of California to cause cancer.

**EPA TSCA Status:** On TSCA Inventory

**Hazard Category for SARA Section 311/312 Reporting:** Acute Chronic

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<th>Product or Components</th>
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<th>SARA Sec. 302</th>
<th>TPQ</th>
<th>List</th>
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<th>CERCLA</th>
<th>Sec. 103</th>
<th>Sec. 261.33</th>
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### 16. ADDITIONAL INFORMATION

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

**Glossary**
- ACGIH.......American Conference of Governmental Industrial Hygienists
- CAS Number..Chemical Abstracts Service Number
CERCLA......Comprehensive Environmental Response, Compensation, and Liability Act
DOT.........U.S. Department of Transportation
IARC........International Agency of Research on Cancer
mppcf.......million particles per cubic foot
N/A.........Not Available
NTP.........National Toxicology Program
OSHA........Occupational Safety and Health Administration
PEL.........Permissible Exposure Limit
ppm.........parts per million
RCRA.......Resource Conservation and Recovery Act
SARA........Superfund Amendments and Reauthorization Act
TLV.........Threshold Limit Value
TSCA.......Toxic Substances Control Act