

Material Safety Data Sheet # 154.5**IDENTITY** (As Used on Label and List)**Dilute Embalming Fluid (in specimen tissues)****Section I**

Manufacturer's Name Ward's Natural Science Establishment	Emergency Telephone Number Chemtrec 800-424-9300
Address (Number, Street, City, State, and ZIP Code) 5100 West Henrietta Road Rochester, NY 14692-9012	Telephone Number for Information 800-962-2660
	Date Prepared November 6, 2003
	Signature of Preparer (Optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	CAS #	OSHA PEL	ACGIH TLV	Other Limits	% Optional
Formalin	50-00-0	0.75ppm	0.75ppm		<4.00%
Phenol	108-95-2	5ppm*	5ppm*		2.80%
Ethylene glycol	107-21-1	50ppm	50ppm		5.50%
Water	7732-18-5	N/A	N/A		>87.70%
*Indicates exposure level for skin					
Dilute embalming fluid is present in specimen tissues as a result of initial fixation.					
Traces of fixative may also be present as residual leachate in packing fluid.					

Section III - Physical/Chemical Characteristics

Boiling Point	>100C (210F)	Specific Gravity (H₂O = 1)	<1.0
Vapor Pressure (mm Hg.)	>1.0	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate n-butyl acetate=1	<1

Solubility in Water
Completely soluble

Appearance and Odor

Clear to slightly amber fluid with medicinal (phenol) odor.

Section IV - Fire and Explosion Hazard

Flash Point <i>(Method Used)</i> >210F	Flammable Limits	LEL N/A	UEL N/A
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Extinguishing Media

Material is non-flammable.

Special Fire Fighting Procedures

Use media best suited for surrounding fire.

Unusual Fire and Explosive Hazards

None. Material is non-flammable.

Section V - Reactivity Data

Stability	Unstable	No	Conditions to Avoid Strong oxidizing agents
	Stable	Yes	

Incompatibility *(Materials to Avoid)*

Avoid contact with hydrochloric acid. HCl contact produces BIS-chloromethyl ether, a carcinogen.

Hazardous Decomposition or Byproducts

Formaldehyde gas, carbon dioxide, carbon monoxide.

Hazardous Polymerization	May Occur	No	Conditions to Avoid Strong oxidizing agents
	Will Not Occur	Yes	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Not likely

Health Hazards *(Acute and Chronic)*

Vapors may cause irritation of eyes and respiratory tract in confined situations with poor ventilation. Repeated or prolonged skin contact may cause dryness and irritation in some individuals.

Carcinogenicity: Potential carcinogen	NTP? No	IARC Monographs? A2 potential carcinogen (formaldehyde)	OSHA Regulated? Yes
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Signs and Symptoms of Exposure

Embalming fluid is a tissue fixative. Avoid skin and eye contact by using protective gear. Avoid breathing vapors which can irritate mucous membranes. Prolonged skin contact may cause dryness, tanning of the skin, allergic reactions and/or dermatitis.

Medical Conditions Generally Aggravated by Exposure

Can cause skin, nose, eye, and upper respiratory tract irritation. Can cause allergic reactions in hypersensitive individuals.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air. Give oxygen if breathing is difficult. Give artificial respiration if breathing has stopped. Get medical attention. Eyes: Flush immediately with running water for 15 minutes, lifting upper and lower eyelids. Get medical attention if irritation persists. Skin: Flush thoroughly with soap and water if contact occurs. Ingestion: Give large amounts of water or milk if conscious. Induce vomiting. Get medical attention immediately.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Small amounts may be flushed to sewer if regulations permit. Otherwise use absorbent media. Provide extra ventilation in spill area.

Waste Disposal Method

Discharge and disposal may be subject to federal, state, and local regulations.

Precautions to be Taken in Handling and Storage

Use recommended protective gear. Use with adequate ventilation.

Other Precautions: For lab use only. Not for drug, food, or cosmetic use. Keep out of reach of children. Avoid prolonged breathing of vapors. Keep away from heat, sparks, or open flames. Keep containers tightly closed when not in use. Remove and wash contaminated clothing.

Section VIII - Control Measures

Respiratory Protection *(Specify Type)*

None needed in normal laboratory situations with general ventilation.

Ventilation	Local Exhaust Recommended	Special Not required
	Mechanical Recommended	Other Adequate to maintain below exposure limit.
Protective Gloves	Recommended	Eye Protection Recommended

Other Protective Clothing or Equipment

Lab coat, apron, with eyewash station in proximity.

Work/Hygenic Practices

Wear protective gear. Wash hands thoroughly with soap and water after use.

FOR ADDITIONAL INFORMATION:

Contact Ward's Safety Manager during business hours at (800) 962-2660.

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