Material Safety Data Sheet # **153.5**

IDENTITY *(As Used on Label and List)*

Dilute Formalin Fixative (Residual in Preserved Specimens)

Section I

Manufacturer's Name	**Emergency Telephone Number**
Ward's Natural Science Establishment	Chemtrec 800-424-9300
Address *(Number, Street, City, State, and ZIP Code)*	**Telephone Number for Information**
5100 West Henrietta Road	800-962-2660
Rochester, NY 14692-9012	**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**	**%**
Formalin	50-00-0	0.75ppm	0.75ppm		1% to 4%
Water	7732-18-5	N/A	N/A		96-99%
Formalin 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 (H_2O = 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 liquid, may be discolored by body fluids to yellow, brown, or red. Pungent, acrid odor.

Section IV - Fire and Explozion Hazard

Flash Point *(Method Used)*	Flammable Limits	LEL	UEL
>180F		N/A	N/A

Extinguishing Media

Use best media for surrounding fire.

Special Fire Fighting Procedures

No special procedures.

Unusual Fire and Explosive Hazards

Non-combustible liquid. No unusual hazards.

Section V - Reactivity Data

Stability	**Unstable**	No	**Conditions to Avoid**
	Stable	Yes	Strong oxidizing agents.

Incompatability *(Materials to Avoid)*

Hazardous Decomposition or Byproducts

Formaldehyde gas, carbon dioxide, and carbon monoxide.

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

Section VI - Health Hazard Data

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

Health Hazards *(Acute and Chronic)*

. Health hazards may include irritation of respiratory tract and nasal passages from formaldehyde gas; dryness and irritation of skin may occur with contact. May cause allergic skin reaction or transient dermatitis in some individuals. Prolonged exposure may lead to cancer, depending on length and level of exposure. Human evidence is inconclusive. Tumors have been induced in rats exposed to high concentrations (>10ppm) for prolonged periods.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	A2 potential carcinogen	Yes

Signs and Symptoms of Exposure

Dilute solution is a low level hazard. Irritation of skin and eyes possible with contact.

Medical Conditions Generally Aggravated by Exposure

Chemical hypersensitivity and pre-existing respiratory conditions may be aggravated by exposure.

Emergency and First Aid Procedures

Inhalation: remove to fresh air. Give oxygen if beathing is difficult. Give artificial respiration if beathing has stopped. Get medical attention. Eyes: Flush thoroughly with water, including upper and lower lids. If irritation persists, get medical attention. Skin: Wash thoroughly if contact occurs. Ingestion: 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

Material may be flushed to drain if local regulations permit. Provide adequate ventilation in spill area.

Waste Disposal Method

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

Precautions to be Taken in Handling and Storage

Use protective gear required. Provide adequate ventilation.

Other Precautions

For lab use only. Not for drug, food, or cosmetic use. Keep out of reach of children. Supervise activities conducted with specimens. Avoid prolonged breathing of vapors. Keep away from heat, sparks, or open flames. Keep containers tightly closed. Remove and wash contaminated clothing.

Section VIII - Control Measures

Respiratory Protection *(Specify Type)*

Not needed under normal laboratory conditions with adequate ventilation. PEL is 0.75ppm STEL 2.0 ppm

Ventilation	**Local Exhaust** Recommended	**Special** None required
	Mechanical Recommended	**Other** Adequate to maintain below exposure level

Protective Gloves	Recommended	**Eye Protection**	Recommended

Other Protective Clothing or Equipment

Lab coat, apron, and eyewash station in close proximity to work area.

Work/Hygenic Practices

Wear protective equipment. Wash hands thoroughly after use.

FOR ADDITIONAL INFORMATION:

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

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