

## 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

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	%
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 <sub>2</sub> O = 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 Explosion Hazard**

<b>Flash Point</b> <i>(Method Used)</i>	<b>Flammable Limits</b>	<b>LEL</b>	<b>UEL</b>
>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**

<b>Stability</b>	<b>Unstable</b>	<b>No</b>	<b>Conditions to Avoid</b>
	<b>Stable</b>	<b>Yes</b>	Strong oxidizing agents.

**Incompatibility** *(Materials to Avoid)***Hazardous Decomposition or Byproducts**

Formaldehyde gas, carbon dioxide, and carbon monoxide.

<b>Hazardous Polymerization</b>	<b>May Occur</b>	<b>No</b>	<b>Conditions to Avoid</b>
	<b>Will Not Occur</b>	<b>Yes</b>	Strong oxidizing agents.

**Section VI - Health Hazard Data**

<b>Route(s) of Entry:</b>	<b>Inhalation?</b>	<b>Skin?</b>	<b>Ingestion?</b>
	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.

<b>Carcinogenicity:</b>	<b>NTP?</b>	<b>IARC Monographs?</b>	<b>OSHA Regulated?</b>
	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 breathing is difficult. Give artificial respiration if breathing 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.



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**Section VII - Precautions for Safe Handling and Use**

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**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.

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**Waste Disposal Method**

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

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**Precautions to be Taken in Handling and Storage**

Use protective gear required. Provide adequate ventilation.

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**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.

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**Section VIII - Control Measures**

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**Respiratory Protection** *(Specify Type)*

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

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<b>Ventilation</b>	<b>Local Exhaust</b> Recommended	<b>Special</b> None required
	<b>Mechanical</b> Recommended	<b>Other</b> Adequate to maintain below exposure level
<b>Protective Gloves</b>	Recommended	<b>Eye Protection</b> Recommended

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**Other Protective Clothing or Equipment**

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

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**Work/Hygenic Practices**

Wear protective equipment. Wash hands thoroughly after use.

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**FOR ADDITIONAL INFORMATION:**

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

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