



## **MASTERTECH BULLETIN**

*(Revised 03/08/18)*

# **ULTRUM II™**

## **A FORMALDEHYDE-FREE TISSUE FIXATIVE**

### **ULTRUM II™, THE PRODUCT AND ITS PURPOSE:**

**ULTRUM II™** is a laboratory reagent designed to replace 10% Formalin. **ULTRUM II™** is a transparent aqueous liquid and does not contain Formaldehyde or any known carcinogens. **ULTRUM II™** is biocidal, fungicidal, and virucidal, yet it degrades when diluted with water. **ULTRUM II™** is virtually odorless, eliminating the unpleasant tears and burning throat sensation associated with Formalin. **ULTRUM II™** is nonalcoholic, nonflammable and is equivalent to 10% Formalin in fixation rate. Tissue fixed in **ULTRUM II™** and stained with most histological stains exhibit less cellular distortion than Formalin fixatives. With **ULTRUM II™**, the usual "muddiness" associated with 10% Formalin is replaced with crisp, well-defined nuclei. The principal active ingredient in **ULTRUM II™** is listed in the Cosmetic Ingredient Dictionary published by the Cosmetic, Toiletry, and Fragrance Association. This ingredient is used in cosmetics, shampoo, soaps, and other household goods. It is also registered with the United States Environmental Protection Agency (#10352-39).

### **ULTRUM II™, INSTRUCTIONS FOR USE:**

Use **ULTRUM II™** as you would 10% Formalin. Open or bisect large specimens prior to fixation. **ULTRUM II™** is compatible with 10% Formalin. If fixing large specimens and firmer tissue is preferred, add 20ml of alcohol to every 100 ml of **ULTRUM II™**. When storing large tissue specimens in containers containing **ULTRUM II™**, be sure the tissue is completely submerged, opened or bisected, and that alcohol has been added to **ULTRUM II™**. If this step is not performed, mold can form on tissue not submerged or completely penetrated by **ULTRUM II™**. Because **ULTRUM II™** is not a gaseous (aromatic) fixative like Formaldehyde, it can only kill microorganisms if the specimen is fully penetrated and completely submerged. Use only Isopropyl Alcohol or Reagent Alcohol (Denatured Ethyl Alcohol) in your tissue processor when using **ULTRUM II™**. If you are using a Vacuum Infiltration Tissue Processor, we recommend wiping down the inside of the retort with a 0.1% Hydrochloric Acid solution followed by two hot water flushes daily. Twice a month flush the lines with 0.1% Hydrochloric Acid solution followed by two hot water flushes.

### **ULTRUM II™, PRECAUTIONS:**

As with any tissue fixative, we recommend wearing appropriate laboratory safety equipment when handling **ULTRUM II™**. Eye protection, gloves, and apron or lab coat are essential. Always use **ULTRUM II™** in a well ventilated area.

### **ULTRUM II™, DISPOSAL:**

Consult your local wastewater authority to determine applicable disposal procedures in your area. The results of an E.P.A. Organic Analysis, Method 8240, performed on **ULTRUM II™** are on the opposite side of this bulletin.

### **ULTRUM II™, EXPIRATION:**

**ULTRUM II™** has a 16 month shelf life; product color will darken over time, but stability and performance are not affected!

### **ULTRUM II™, LABELING:**

Label specimen containers of **ULTRUM II™** as: **ULTRUM II™ TISSUE FIXATIVE / FOR LABORATORY USE ONLY.** **ULTRUM II™** container labels (LBULT), 1" x 3" / 500 per roll, are available from American MasterTech Scientific, Inc.

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# ENVIRONMENTAL

## ANALYTICAL CHEMISTS

November 6, 1992

LAB No: STK 204873-1

\*American Histology Reagent Company  
P.O. Box 7344  
Stockton, CA 95267

RE: Organic Analysis  
Matrix: Liquid

Sampling Site:  
Sample Description: Ultram II  
Sampled by: Rudy Gutierrez  
Container: Amber VOA TFE-Cap  
Preservatives:

Sampled: October 27, 1992  
Received: October 27, 1992  
Extracted: November 3, 1992  
Analyzed: November 3, 1992  
QA/QC ID#: 921103 8240-304A

### EPA METHOD 8240 ULTRUM II™

CONSTITUENT	SAMPLE DLR ug/kg	SAMPLE RESULTS ug/kg	LAB DLR ug/kg	BLANK RESULTS ug/kg
Acetone	10.0	11.2	10.0	ND
Benzene	5.0	ND	5.0	ND
Bromodichloromethane	5.0	ND	5.0	ND
Bromoform	5.0	ND	5.0	ND
Bromomethane	10.0	ND	10.0	ND
Carbon Disulfide	5.0	ND	5.0	ND
Carbon Tetrachloride	5.0	ND	5.0	ND
Chlorobenzene	5.0	ND	5.0	ND
Chloroethane	10.0	ND	10.0	ND
Chloroform	5.0	ND	5.0	ND
Chloromethane	10.0	ND	10.0	ND
Dibromochloromethane	5.0	ND	5.0	ND
1,2-Dichlorobenzene	5.0	ND	5.0	ND
1,3-Dichlorobenzene	5.0	ND	5.0	ND
1,4-Dichlorobenzene	5.0	ND	5.0	ND
1,1-Dichloroethane	5.0	ND	5.0	ND
1,2-Dichloroethane	5.0	ND	5.0	ND
1,1-Dichloroethylene	5.0	ND	5.0	ND
trans-1,2-Dichloroethylene	5.0	ND	5.0	ND
1,2-Dichloropropane	5.0	ND	5.0	ND
cis-1,3-Dichloropropene	5.0	ND	5.0	ND
trans-1,3-Dichloropropene	5.0	ND	5.0	ND
Ethanol	10,000	ND	10,000	ND
Ethyl Benzene	5.0	ND	5.0	ND
2-Hexanone	5.0	ND	5.0	ND
Methylene Chloride	5.0	ND	5.0	ND
2-Butanone (MEK)	10.0	ND	10.0	ND
4-Methyl-2-pentanone (MIBK)	5.0	ND	5.0	ND
Styrene	5.0	ND	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND	5.0	ND
Tetrachloroethylene	5.0	ND	5.0	ND
Toluene	5.0	ND	5.0	ND
1,1,1-Trichloroethane	5.0	ND	5.0	ND
1,1,2-Trichloroethane	5.0	ND	5.0	ND
Trichloroethylene	5.0	ND	5.0	ND
Trichlorofluoromethane	5.0	ND	5.0	ND
Vinyl Acetate	100.0	ND	100.0	ND
Vinyl Chloride	10.0	ND	10.0	ND
Xylenes	5.0	ND	5.0	ND

\*Former name of AMERICAN MASTER\*TECH SCIENTIFIC, INC.