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## MATERIAL SAFETY DATA SHEET

### I. CHEMICAL IDENTIFICATION

TRADE NAMES: BROMINE CHEMets® and Vacu-vials®

CATALOG NOS.: R-1603 and R-1610

DESCRIPTION: Reagent ampoules for the determination of bromine in water. Each CHEMet™ ampoule contains approximately 0.50 mL of liquid reagent sealed under vacuum. Each Vacu-vial™ ampoule contains approximately 2 mL of liquid reagent sealed under vacuum.

NFPA RATINGS: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

### II. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT: Formaldehyde Solution, 37%  
CAS NO.: 50-00-0 PERCENT: < 0.2

COMPONENT: Potassium Phosphate Monobasic  
CAS NO.: 7778-77-0 PERCENT: 2.0

COMPONENT: Methanol  
CAS NO.: 67-56-1 PERCENT: 4.0

COMPONENT: Deionized Water  
CAS NO.: 7732-18-5 PERCENT: >93.0

COMPONENT: Other components  
CAS NO.: N/A PERCENT: < 1.0

Any component of this mixture not specifically listed (e.g. "other components") is not considered to present a carcinogen hazard.

### III. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation, CNS depression, blindness, may cause liver, kidney, or heart damage.

CHRONIC TOXICITY: Irritation and sensitization dermatitis, cumulative effects.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, liver, kidney, skin or respiratory disorders

### IV. FIRST AID MEASURES

EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15 minutes.

INGESTION: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Seek medical attention.

INHALATION: Remove individual to fresh air. If not breathing give artificial respiration (do not use mouth to mouth resuscitation), if breathing is difficult, administer oxygen and seek medical attention.

### V. FIRE FIGHTING MEASURES

FLASH POINT: N/A AUTOIGNITION POINT: N/A  
FLAMMABILITY LIMITS: UPPER: N/A LOWER: N/A  
EXTINGUISHING MEDIA: Dry chemical or carbon dioxide

### VI. ACCIDENTAL RELEASE MEASURES

Take up with absorbent material. Place in small containers for disposal.

### VII. HANDLING AND STORAGE

**Always wear eye protection when working with these ampoules.**

**WARNING:** Do not break the tip of the ampoule unless it is **completely immersed** in your sample. Breaking the tip in the air may cause the glass ampoule to shatter.

If this product is used as directed, the user will not come in contact with or be exposed to any of its chemical components.

Wash thoroughly after handling. Avoid contact with eyes.

Fragile. Liquid in glass. Handle with care.

Product should be stored in the dark and at room temperature; however, temperatures up to 120°F or even below freezing will not normally affect reagent performance.

### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PERMISSIBLE EXPOSURE LIMIT: 2 ppm Formaldehyde (ceiling), 200ppm Methanol  
ACGIH THRESHOLD LIMIT VALUE: 0.3 ppm Formaldehyde (ceiling)  
PROTECTIVE EQUIPMENT: Safety glasses.

### IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless ODOR: None  
SOLUBILITY IN WATER: Complete pH: 4  
BOILING POINT: 95°C MELTING POINT: 0°C  
VAPOR PRESSURE: N/A SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 1  
VAPOR DENSITY (AIR = 1): N/A

### X. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition, toxic fumes of formaldehyde and oxides of carbon are emitted.  
Stable under normal conditions.

### XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: Formaldehyde: ACGIH: A2 Suspected carcinogen, IARC: Group 2A carcinogen.  
No other data available at this time.

### XII. ECOLOGICAL INFORMATION

Methanol, in high concentrations, is dangerous to aquatic life, and is expected to biodegrade rapidly.  
No other data available at this time.

### XIII. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with Federal, State, and Local Regulations.

### XIV. TRANSPORT INFORMATION

Not Regulated.

### XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:

EU Symbols: T - TOXIC

Risk Phrases: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Safety Phrases: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of contact with eyes, rinse immediately and seek medical advice.

CANADA INFORMATION:

WHMIS Classification: D1A, D2A

All chemical components of this product are listed on Canada's DSL list.

U.S. INFORMATION:

This product contains methanol and formaldehyde which are subject to SARA Section 313 reporting requirements.

All chemical components of this product are listed on the TSCA Inventory.

### XVI. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. ALL PRODUCTS ARE OFFERED IN ACCORDANCE WITH THE MANUFACTURER'S CURRENT PRODUCTION SPECIFICATIONS AND ARE INTENDED SOLELY FOR USE IN ANALYTICAL TESTING. THE MANUFACTURER SHALL IN NO EVENT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE RESULTING FROM THE HANDLING, USE OR MISUSE OF THESE PRODUCTS.

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