CHEMetrics, Inc. 4295 Catlett Rd., Calverton, VA 20138 (800) 356-3072 (540) 788-9026

Fax (540) 788-4856 E-mail technical@chemetrics.com

After Hours Emergency Nos.: (703) 447-9550

(540) 272-3874 06/24/11 (2997-4)

Creation Date: 06/24/11 (2 Revision Date: 09/01/11

Tievision Bate. 05/01/11

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAMES:

Bromine CHEMets® Refill and Vacu-vials® Ampoules Chlorine CHEMets® Refill and Vacu-vials® Ampoules Hydrogen Peroxide CHEMets® Refill and Vacu-vials® Ampoules Ozone CHEMets® Refill and Vacu-vials® Ampoules Peracetic Acid CHEMets® Refill and Vacu-vials® Ampoules

CATALOG NOS.

R-1605, K-1613 (ampoules), R-2500, K-2513 (ampoules), K-2523 (ampoules), R-5502, K-5513 (ampoules), R-7404, K-7423 (ampoules), R-7904, K-7913 (ampoules)

DESCRIPTION: Reagent ampoules for the determination of various analytes in water. (Note: Complete kits contain reagent ampoules and Activator Solution. See MSDS for Activator Solution also.)

Each CHEMet[™] ampoule contains approximately 0.5 mL of 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. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation

CHRONIC TOXICITY: Irritation, dermatitis

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No data available

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Acetone

CAS NO.: 67-64-1 PERCENT: < 4.0

COMPONENT: Deionized Water

CAS NO.: 7732-18-5 PERCENT: > 94

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.

IV. FIRST AID MEASURES

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

INGESTION: 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 advice. INHALATION: Remove individual to fresh air.

V. FIRE FIGHTING MEASURES

FLASH POINT: N/A AUTOIGNITION POINT: N/A FLAMMABILITY LIMITS: UPPER: N/A LOWER: N/A

EXTINGUISHING MEDIA: Water, dry chemical, foam 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.

Exposure of this product to temperatures up to $120^{\circ}F$ ($49^{\circ}C$) or even below $32^{\circ}F$ ($0^{\circ}C$) will not create a safety hazard. For optimum analytical accuracy, the product should be stored in the dark and at room temperature, the product should not be used beyond expiration date and Vacu-vials ampoules should be stored in a tips down position.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 1000 ppm TWA Acetone ACGIH TLV: 500 ppm TWA Acetone PROTECTIVE EQUIPMENT: Impact- and splash-resistant eyewear; Protective gloves compatible with the hazardous reagent constituents identified on this MSDS

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless to pale pink ODOR: None

SOLUBILITY IN WATER: Complete pH: 6.3 BOILING POINT: 94°C MELTING POINT: -7°C VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.0

VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong acids, strong bases HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: Acetone: ACGIH - Group A4 , not classifiable as a human carcinogen

No other data available at this time.

XII. ECOLOGICAL INFORMATION

Expected to volatilize or 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: None Risk/Safety Phrases: None

CANADIAN INFORMATION: WHMIS Classification: D2B

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

U.S. INFORMATION:

OSHA: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard (29 CFR 1910.1200).

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.

CHEMets® and Vacu-vials® are registered trademarks of CHEMetrics, Inc.