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## MATERIAL SAFETY DATA SHEET

### I. CHEMICAL IDENTIFICATION

TRADE NAMES: HYDROGEN PEROXIDE CHEMets®, VACUettes®, and Vacu-vials®

CATALOG NOS.: R-5510, R-5510A, R-5510B, R-5510C, R-5510D, and K-5543

DESCRIPTION: Reagent ampoules for the determination of hydrogen peroxide in water. Each CHEMet™ and VACUette™ ampoule contains approximately 0.5 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. HAZARDS IDENTIFICATION

Irritant. Risk of serious damage to eyes.  
 ACUTE TOXICITY: Irritation, nausea, diarrhea  
 CHRONIC TOXICITY: Irritation  
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and skin disorders

### III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Ferrous Ammonium Sulfate, hexahydrate  
 CAS NO.: 7783-85-9 PERCENT: < 0.5

COMPONENT: Sulfuric Acid  
 CAS NO.: 7664-93-9 PERCENT: < 0.5

COMPONENT: Methanol  
 CAS NO.: 67-56-1 PERCENT: < 0.5

COMPONENT: Ammonium Thiocyanate  
 CAS NO.: 1762-95-4 PERCENT: 3.0

COMPONENT: Acetic Acid, Glacial  
 CAS NO.: 64-19-7 PERCENT: 4.5 - 5.5

COMPONENT: Deionized Water  
 CAS NO.: 7732-18-5 PERCENT: > 90

### IV. FIRST AID MEASURES

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

INGESTION: Do not induce vomiting unless directed by medical personnel. 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 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: Dry chemical, carbon dioxide, water spray or foam

### 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°F (49°C) or even below 32°F (0°C) will not create a safety hazard. For optimum analytical accuracy, the product should be stored in the dark and at room temperature, and should not be used beyond expiration date.

### VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 10 ppm TWA glacial acetic acid, 1.0 mg/m<sup>3</sup> TWA sulfuric acid  
 ACGIH TLV: 10 ppm TWA glacial acetic acid, 0.2 mg/m<sup>3</sup> TWA sulfuric acid  
 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 ODOR: Mild, vinegar-like  
 SOLUBILITY IN WATER: Complete pH: 1.5  
 BOILING POINT: 101 °C MELTING POINT: 1 °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: hydrogen cyanide, formaldehyde gas, ammonia or ammonia derivatives, oxides of sulfur, nitrogen and carbon  
 Stable under normal conditions.

### XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: None.  
 No other data available at this time.

### XII. ECOLOGICAL INFORMATION

Acetic acid has a high BOD demand and biodegrades 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: Xi - IRRITANT

Risk Phrases: Risk of serious damage to eyes.

Safety Phrases: Avoid contact with eyes. Wear eye/face protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

CANADIAN INFORMATION:

WHMIS Classification: D2A, D1B, D2B

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

U.S. INFORMATION:

RCRA: Contains RCRA regulated substances. EPA Waste ID Nos.: D002, D003

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

SARA Section 313: This product contains methanol and ammonium salts which are subject to the reporting requirements of Section 313 of SARA Title III.

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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