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## MATERIAL SAFETY DATA SHEET

### I. CHEMICAL IDENTIFICATION

TRADE NAME: MERCAPTOBENZOTHAZOLE Titrets®

CATALOG NOS.: K-6810, K-6810N

DESCRIPTION: Reagent ampoules for the titrimetric determination of mercaptobenzothiazole in water. Each ampoule contains approximately 1.1 mL of liquid reagent sealed under vacuum.

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

### II. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Potassium Permanganate  
 CAS NO.: 7722-64-7 PERCENT: < 0.5

COMPONENT: Phosphoric Acid, Concentrated  
 CAS NO.: 7664-38-2 PERCENT: < 10.5

COMPONENT: Deionized Water  
 CAS NO.: 7732-18-5 PERCENT: > 89.0

### III. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation, cough, shortness of breath, abdominal pain  
 CHRONIC TOXICITY: Irritation, tooth erosion, kidney damage, lung inflammation  
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin, respiratory, liver and kidney 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 to fresh air. If necessary, give artificial respiration by mechanical means, do not use mouth to mouth resuscitation, seek medical advice.

### 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:** Breaking the ampoule tip in air when the valve assembly is not attached 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 at room temperature, and product components should not be used beyond expiration date.

### VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 1 mg/m<sup>3</sup> TWA phosphoric acid, 5 mg/m<sup>3</sup> C manganese  
 ACGIH TLV: 1 mg/m<sup>3</sup> TWA phosphoric acid, 0.2 mg/m<sup>3</sup> TWA manganese  
 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: Brilliant Pink ODOR: None  
 SOLUBILITY IN WATER: Complete pH: 1  
 BOILING POINT: 108°C MELTING POINT: 1°C  
 VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.0  
 VAPOR DENSITY: N/A

### X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong caustics, metals  
 HAZARDOUS DECOMPOSITION PRODUCTS: oxides of potassium, manganese and phosphorus  
 Stable under normal conditions.

### XI. TOXICOLOGICAL INFORMATION

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

### XII. ECOLOGICAL INFORMATION

Potassium permanganate is harmful to aquatic organisms in very low concentrations. Phosphoric acid may leach to groundwater; acidity reduced in water by water hardness but phosphate may persist indefinitely.  
 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

U.S. DOT, IATA, and IMDG: Dangerous Goods in Excepted Quantities  
 Hazard Class: 8 UN No.: 1760 Packing Group: III

### XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:  
 EU Symbols: C - CORROSIVE  
 Risk Phrases: Causes burns.  
 Safety Phrases: Avoid contact with eyes and skin. In case of contact with eyes or skin, rinse immediately and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CANADIAN INFORMATION:  
 WHMIS Classification: E  
 All chemical components of this product are listed on Canada's DSL.

U.S. INFORMATION:  
 RCRA: Contains RCRA regulated substances. EPA Waste ID No.: D002  
 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 potassium permanganate which is 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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