

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
Creation Date: 02/25/02 (2815-6)
Revision Date: 03/05/09

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: CHLORIDE Vacu-vials® and ACTIVATOR SOLUTION

KIT CATALOG NO.: K-2103

COMPONENT CATALOG NO.: A-2100

DESCRIPTION: Reagent ampoules and accessory solution for the determination of chloride in water. Each Vacu-vial™ contains approximately 2 mL of liquid reagent sealed under vacuum. Each bottle of activator solution contains approximately 18 mL of accessory solution.

In the Vacu-vials®:

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

In the Activator Solution:

NFPA RATINGS: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

II. COMPOSITION/INFORMATION ON INGREDIENTS

In the Vacu-vials®:

COMPONENT: Ethylene Glycol
CAS NO.: 107-21-1 PERCENT: < 9.0

COMPONENT: Methanol
CAS NO.: 67-56-1 PERCENT: < 1.0

COMPONENT: Mercuric Thiocyanate
CAS NO.: 592-85-8 PERCENT: < 0.1

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: > 90.0

In the Activator Solution:

COMPONENT: Ferric Nitrate, Nonahydrate
CAS NO.: 7782-61-8 PERCENT: < 38.0

COMPONENT: Nitric Acid
CAS NO.: 7697-37-2 PERCENT: < 4.0

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: > 58.0

III. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation
CHRONIC TOXICITY: Irritation
TARGET ORGANS: kidneys, heart, liver, eyes, central nervous system
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin disorders

IV. FIRST AID MEASURES

EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15 minutes.
INGESTION: Seek medical attention.
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 spray

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 if applicable, product components should not be used beyond expiration date.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL: 200 ppm TWA Methanol, 0.1 mg/m³ C Mercury, 2 ppm TWA Nitric Acid

ACGIH TLV: 100 mg/m³ C Ethylene Glycol, 200 ppm TWA Methanol,

0.025 mg/m³ TWA Mercury (skin), 2 ppm TWA Nitric Acid

PROTECTIVE EQUIPMENT: Safety glasses

IX. PHYSICAL AND CHEMICAL PROPERTIES

In the Vacu-vials®:

STATE: Liquid APPEARANCE: Colorless ODOR: None

SOLUBILITY IN WATER: Complete pH: 5.6

BOILING POINT: 130°C MELTING POINT: -5.0°C

VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.02

VAPOR DENSITY: N/A

In the Activator Solution:

STATE: Liquid APPEARANCE: Brown ODOR: None

SOLUBILITY IN WATER: Miscible pH: < 2

BOILING POINT: 95°C MELTING POINT: N/A

VAPOR PRESSURE: Not determined SPECIFIC GRAVITY: 1.20

VAPOR DENSITY: Not determined

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong acids, strong bases, strong reducing and oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes, oxides of carbon and nitrogen

Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: Ethylene glycol: ACGIH - Group A4, not classifiable as a human carcinogen; Inorganic mercury compounds: ACGIH - Group A4, not classifiable as a human carcinogen, IARC - Group 3, not classifiable as to its carcinogenicity to humans

TOXICOLOGICAL STATUS: Mercury compounds: California Proposition 65 - reproductive toxicant (developmental)

No other data available at this time.

XII. ECOLOGICAL INFORMATION

Methanol is dangerous to aquatic life in high concentrations and is expected to biodegrade rapidly in soil and water. Ethylene glycol biodegrades rapidly, may leach to ground water, and is not expected to bioconcentrate. Mercuric thiocyanate is expected to bioaccumulate and be toxic to aquatic organisms. No other data available at this time.

XIII. DISPOSAL CONSIDERATIONS

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

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
Creation Date: 02/25/02 (2815-6)
Revision Date: 03/05/09

XIV. TRANSPORT INFORMATION

U.S. DOT, IATA and IMDG: Dangerous Goods in Excepted Quantities
Hazard Class: 9 UN No.: 3316 Packing Group: III

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:

EU Symbols: Xi - IRRITANT, O - OXIDIZING

Risk Phrases: Contact with combustible material may cause fire. Irritating to skin and eyes. Possible risk of irreversible effects through inhalation, in contact with skin, or if swallowed.

Safety Phrases: Avoid contact with skin and eyes. In case of contact with skin or eyes, rinse immediately with plenty of water 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: D1B, D2A, D2B, C, E

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.:

Vacu-vials: D009, Activator Solution: 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 ethylene glycol, methanol, a mercury compound, and nitric acid which are subject to the reporting requirements of Section 313 of SARA Title III.

CALIFORNIA PROPOSITION 65: This product contains a chemical known to the State of California as a reproductive toxicant.

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.

Vacu-vials® is a registered trademark of CHEMetrics, Inc.