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: **04/09/87 (1039-23)**
Revision Date: **11/29/11**

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAMES: AMMONIA CHEMets® Refill, VACUettes® Refills, and Vacu-vials® Ampoules

CATALOG NOS.: R-1501, R-1501A, R-1501B, R-1501C, R-1501D, K-1503 (ampoules), and K-1523 (ampoules)

DESCRIPTION: Reagent ampoules for the determination of ammonia in water.
(Note: Complete CHEMets® and Vacu-vials® kits contain reagent ampoules and Stabilizer Solutions, Catalog Nos. A-1500 and A-1501. See corresponding solutions MSDS.)
Each CHEMet™ and VACUette™ ampoule contains approximately 0.5 mL of reagent sealed under vacuum. Each K-1503 Vacu-vial™ ampoule contains approximately 2 mL of reagent sealed under vacuum. Each K-1523 Vacu-vial™ ampoule contains approximately 4.5 mL of reagent sealed under vacuum.

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

II. HAZARDS IDENTIFICATION

Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Risk of serious damage to eyes. Irritating to skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
ACUTE TOXICITY: headache, coughing, dizziness, difficulty breathing
CHRONIC TOXICITY: damage to central nervous system, kidneys, liver, eyes. Prolonged or repeated exposure may cause adverse reproductive or fetal effects.
TARGET ORGANS: Kidneys, liver, G.I. system, central nervous system
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin and respiratory disorders

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Potassium Iodide
CAS NO.: 7681-11-0 PERCENT: 1.0 - 1.5

COMPONENT: Mercuric (II) Iodide
CAS NO.: 7774-29-0 PERCENT: 1.0 - 2.0

COMPONENT: Sodium Borate, Decahydrate
CAS NO.: 1303-96-4 PERCENT: 2.0 - 2.5

COMPONENT: Sodium Hydroxide
CAS NO.: 1310-73-2 PERCENT: 2.5 - 3.5

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. Seek medical advice.
INGESTION: Seek medical attention. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. DO NOT induce vomiting.
INHALATION: Remove individual to fresh air. If not breathing give artificial respiration but not by mouth. If breathing is difficult, administer oxygen. 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: 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, this product should be stored in the dark at room temperature and should not be used beyond the expiration date.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 0.1 mg/m^3 ceiling Hg, 2mg/m^3 ceiling NaOH, 10 mg/m^3 TWA sodium borate. ACGIH TLV: 0.1 mg/m^3 TWA Hg, 2mg/m^3 ceiling NaOH, 5 mg/m^3 TWA sodium borate
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: Pale Yellow ODOR: None
SOLUBILITY IN WATER: Complete SPECIFIC GRAVITY: 1.1
pH: 13.5 BOILING POINT: 100°C MELTING POINT: 0°C
VAPOR PRESSURE: N/A VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Strong acids, strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes, oxides of potassium, sodium, boron and iodine
Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: 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

Mercuric iodide is expected to bioaccumulate and is expected to 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.

XIV. TRANSPORT INFORMATION

US DOT, IATA, and IMDG: Dangerous Goods In Excepted Quantities
Hazard Class: 8 UN No.: 1760 Packing Group: II

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:
EU Symbols: T - TOXIC, Xi - IRRITANT
Risk Phrases: Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Risk of serious damage to eyes. Irritating to skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases: Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. When using, do not eat or drink. Do not breathe vapor. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and/or its container must be disposed of as hazardous waste. If swallowed, seek medical advice immediately and show container or label.

CANADIAN INFORMATION:
WHMIS Classification: E, D1A, D2B, D2A
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, D009
OSHA: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard (29 CFR 1910.1200).
SARA: This product contains a mercury compound which is 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.

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Revision Date: **11/29/11**

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: AMMONIA STABILIZER SOLUTION

CATALOG NOS.: A-1500 and A-1501

DESCRIPTION: An accessory solution used in conjunction with reagent ampoules in the determination of ammonia in water. Each bottle of A-1500 contains approximately 9 mL of accessory solution. Each bottle of A-1501 contains approximately 18 mL of accessory solution.

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

II. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Eye, skin, mucous membrane and upper respiratory tract irritation, liver and kidney damage, central nervous system depression.
CHRONIC TOXICITY: May cause rise in blood pressure, effects may be delayed.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: unknown

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Potassium Hydroxide
CAS NO.: 1310-58-3 PERCENT: 0.1

COMPONENT: Diethylene Glycol
CAS NO.: 111-46-6 PERCENT: 5.0

COMPONENT: Sodium Potassium Tartrate, Tetrahydrate
CAS NO.: 6381-59-5 PERCENT: 26.0 - 27.0

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: > 68

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: Dry chemical, carbon dioxide or alcohol foam

VI. ACCIDENTAL RELEASE MEASURES

Take up with absorbent material. Place in small containers for disposal. Ventilate area and wash spill site after material pick up is complete.

VII. HANDLING AND STORAGE

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.
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 & ACGIH TLV: None established
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: None
SOLUBILITY IN WATER: Miscible pH: 8
BOILING POINT: 104°C MELTING POINT: 10°C
VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.12
VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, potassium, and sodium
Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

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

XII. ECOLOGICAL INFORMATION

No data available.

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 Phrases: None
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 label where possible).

CANADIAN INFORMATION:
WHMIS Classification: D2B
The substances in this product are listed on Canada's DSL or are exempt.

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.