



SAFETY DATA SHEET

Page 1 of 1
R1605-1

I. CHEMICAL IDENTIFICATION

PRODUCT TRADE NAMES:

Bromine CHEMetrics® Refill and Vacu-vials® Ampoules
Chlorine CHEMetrics® Refills and Vacu-vials® Ampoules
Chlorine Dioxide CHEMetrics® Refill and Vacu-vials® Ampoules
Hydrogen Peroxide CHEMetrics® Refill and Vacu-vials® Ampoules
Hypochlorite CHEMetrics® Refill
Ozone CHEMetrics® Refill and Vacu-vials® Ampoules
Peracetic Acid CHEMetrics® Refill and Vacu-vials® Ampoules

PRODUCT PART NOS.:

R-1605, K-1613 (Ampoules), R-2500, R-2504, R-2509,
K-2513 (Ampoules), K-2523 (Ampoules), K-2703 (Ampoules), R-2705,
R-5502, K-5513 (Ampoules), R-5808, R-7404, K-7423 (Ampoules),
R-7904, K-7913 (Ampoules)

COMPONENTS OF KIT CATALOG NOS.:

I-2001, I-2005, I-2019, I-2020, K-1605, K-1613, K-2500, K-2504,
K-2504A, K-2504B, K-2504C, K-2504D, K-2513, K-2523, K-2703,
K-2705, K-5502, K-5513, K-5808, K-5816, K-7404, K-7423, K-7904,
K-7913

Complete kits contain additional chemical reagent(s). See separate SDS(s).

MANUFACTURER:

CHEMetrics, Inc., 4295 Catlett Road, Midland VA 22728
phone: 800-356-3072, 540-788-9026 fax: 540-788-4856
email: technical@chemetrics.com

EMERGENCY PHONE NUMBERS:

FOR CHEMICAL EMERGENCY USE ONLY (spill, leak, fire, exposure, accident).
Use the corporate numbers above for all other calls.

CHEMTREC within USA and Canada: 800-424-9300
CHEMTREC outside USA and Canada: +1-703-527-3887

PRODUCT DESCRIPTION: Part of a water analysis test kit. Each CHEMet™ 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.

II. HAZARDS IDENTIFICATION

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

ACUTE TOXICITY: Irritation

CHRONIC TOXICITY: Irritation, dermatitis

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No information available

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT:	Potassium Phosphate Monobasic	
CAS NO.:	7778-77-0	PERCENT: < 2
COMPONENT:	Acetone	
CAS NO.:	67-64-1	PERCENT: < 4
COMPONENT:	Deionized Water	
CAS NO.:	7732-18-5	PERCENT: > 94
COMPONENT:	Other components	
CAS NO.:	N/A	PERCENT: < 1

Any component of this mixture not specifically listed (e.g. "other components") is not considered to present a carcinogenic 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 cupsful 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: > 75°C AUTOIGNITION POINT: Not available
FLAMMABILITY LIMITS: UPPER: Not available LOWER: Not available
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 this product.

WARNING: Do not break the tip of the ampoule unless it is completely immersed in sample. Breaking the tip in 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.

Fragile. Liquid in glass. Handle with care.

Wash thoroughly after handling. Avoid contact with eyes.

Exposure of this product to temperatures up to 49°C or below 0°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 SDS.

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless to pale pink ODOR: None
SOLUBILITY IN WATER: Complete pH: 6.3 SPECIFIC GRAVITY: 1.0
BOILING POINT: 94°C MELTING / FREEZING POINT: -7°C
VAPOR PRESSURE: Not determined VAPOR DENSITY: Not determined

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

Acetone is 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

This product is not regulated for transport. The complete kit contains additional chemical reagent(s). See corresponding SDS(s) for other kit components for transport information.

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:

All chemical components of this product are listed on the TSCA Inventory.

XVI. OTHER INFORMATION

SDS Creation Date: 2012-12-14

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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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: 08/31/11 (2999-2)
Revision Date: 10/07/11

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: ACTIVATOR SOLUTION

CATALOG NOS.: A-1600, A-2500, A-2500V, A-5501, A-7400, A-7900

DESCRIPTION: An accessory solution used in conjunction with reagent ampoules in the determination of various analytes in water. Each bottle contains approximately 9 mL of accessory solution.

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

II. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation, nausea, diarrhea

CHRONIC TOXICITY: Irritation, iodism

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pregnancy-
 Chronic ingestion during pregnancy can cause fetal harm or death.

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Potassium Iodide
 CAS NO.: 7681-11-0 PERCENT: 10.0 - 12.0

COMPONENT: Deionized Water
 CAS NO.: 7732-18-5 PERCENT: > 85

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: 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 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, water spray or foam

VI. ACCIDENTAL RELEASE MEASURES

Take up with absorbent material. Place in small containers for disposal.

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 on this MSDS.

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless ODOR: None

SOLUBILITY IN WATER: Miscible pH: 11

BOILING POINT: 100°C MELTING POINT: < 0°C

VAPOR PRESSURE: Not determined SPECIFIC GRAVITY: > 1

VAPOR DENSITY: Not determined

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong acids, strong bases, strong reducing agents
 HAZARDOUS DECOMPOSITION PRODUCTS: oxides of potassium and iodine

Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC 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/Safety Phrases: None

CANADIAN INFORMATION:

WHMIS Classification: D2A

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

U.S. INFORMATION:

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.



SAFETY DATA SHEET

Page 1 of 1
S5500-1

I. CHEMICAL IDENTIFICATION

PRODUCT TRADE NAME:

Activator Solution for Hydrogen Peroxide CHEMetrics® and Vacu-vials® Kits

PRODUCT PART NO.: A-5500

COMPONENT OF KIT CATALOG NOS.: K-5502, K-5504, K-5513

Complete kits contain additional chemical reagent(s). See separate SDS(s).

MANUFACTURER:

CHEMetrics, Inc., 4295 Catlett Road, Midland VA 22728
phone: 800-356-3072, 540-788-9026 fax: 540-788-4856
email: technical@chemetrics.com

EMERGENCY PHONE NUMBERS:

FOR CHEMICAL EMERGENCY USE ONLY (spill, leak, fire, exposure, accident).

Use the corporate numbers above for all other calls.

CHEMTREC within USA and Canada: 800-424-9300

CHEMTREC outside USA and Canada: +1-703-527-3887

PRODUCT DESCRIPTION: Part of a water analysis test kit. Each bottle of activator solution contains approximately 9 mL of liquid reagent.

II. HAZARDS IDENTIFICATION

Corrosive. Causes severe burns.

NFPA RATINGS: HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 1

ACUTE TOXICITY: Irritation, burns, vomiting, diarrhea, delayed lung edema, irreversible eye and tissue injury

CHRONIC TOXICITY: Irritation, dermatitis, conjunctivitis, tooth erosion, respiratory distress, hypotension, cyanosis, bronchitis, liver or kidney effects, copper deficiency

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin, liver, kidney and respiratory disorders

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT:	Ammonium Molybdate	
CAS NO.:	12027-67-7	PERCENT: 2 - 3
COMPONENT:	Sulfuric Acid	
CAS NO.:	7664-93-9	PERCENT: 10 - 11
COMPONENT:	Deionized Water	
CAS NO.:	7732-18-5	PERCENT: 86 - 88

IV. FIRST AID MEASURES

EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15 minutes. Remove contaminated clothing. Seek medical advice.

INGESTION: Do not induce vomiting. If victim is conscious and alert, give large quantities of water. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

INHALATION: Remove individual 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: Not available AUTOIGNITION POINT: Not available
FLAMMABILITY LIMITS: UPPER: Not available LOWER: Not available
EXTINGUISHING MEDIA: Dry chemical or carbon dioxide

VI. ACCIDENTAL RELEASE MEASURES

Take up with absorbent material. Place in small containers for disposal.

VII. HANDLING AND STORAGE

Wear eye protection when working with this product.

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 49°C or below 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: 1 mg/m³ TWA sulfuric acid

ACGIH TLV: 0.2 mg/m³ TWA sulfuric acid

PROTECTIVE EQUIPMENT: Impact- and splash-resistant eyewear; Protective gloves compatible with the hazardous reagent constituents identified on this SDS.

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid

APPEARANCE: Colorless to pale yellow

SOLUBILITY IN WATER: Miscible pH: < 0.5

ODOR: None SPECIFIC GRAVITY: 1.06

BOILING POINT: 120°C MELTING / FREEZING POINT: 0°C

VAPOR PRESSURE: Not determined VAPOR DENSITY: Not determined

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: bases, oxidizers, amines, organic material

HAZARDOUS DECOMPOSITION PRODUCTS: ammonia gas, hydrogen gas, oxides of nitrogen, molybdenum, and sulfur
Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: Soluble molybdenum compounds: ACGIH - Group A3, confirmed animal carcinogen with unknown relevance to humans.

No other data available at this time.

XII. ECOLOGICAL INFORMATION

Sulfuric acid is harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

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: II

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:

EU Symbols: C - CORROSIVE

Risk Phrases: Causes severe burns.

Safety Phrases: Avoid contact with skin and eyes. Wear suitable protective clothing, gloves, and eye/face protection. 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: D1A, 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: This product contains an ammonium salt 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

SDS Creation Date: 2012-11-13

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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