

SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

PRODUCT TRADE NAME: CHEMets® Ampoules for Filming Amines CHEMets® Kit and Refill (R-1001) CHEMets® Ampoules for Detergents CHEMets® Kit and Refill (R-9401)

COMPONENTS OF PRODUCT PART NOS .:

R-1000, R-1000E, K-1001, K-1001E, K-9400, R-9400, K-9404, R-9404 Complete kits and refills 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 0.25 mL of liquid reagent sealed under vacuum.

II. HAZARDS IDENTIFICATION

Highly flammable. Irritant. Risk of serious damage to eyes. Vapors may cause drowsiness and dizziness.

NFPA RATINGS: HEALTH: 1 FLAMMABILITY: 3 REACTIVITY: 0 ACUTE TOXICITY: Irritation, eye damage, central nervous system effects, nausea

CHRONIC TOXICITY: CNS depression, irritation, dermatitis, defatting MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye and liver disorders

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: CAS NO.:	Deionized Water 7732-18-5	PERCENT:	2
COMPONENT: CAS NO.:	n-Propanol 71-23-8	PERCENT:	98

IV. FIRST AID MEASURES

 $\ensuremath{\mathsf{EYE}}$ AND SKIN CONTACT: Immediately flush eyes and skin with water for 15 minutes.

INGESTION: Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Seek medical advice. INHALATION: Remove individual to fresh air. If necessary, give artificial respiration. Seek medical advice.

V. FIRE FIGHTING MEASURES

FLASH POINT: 23°C (closed cup) AUTOIGNITION POINT: 413°C FLAMMABILITY LIMITS: UPPER: 13.5% LOWER: 2.1% FIRE / EXPLOSION HAZARDS: Fire hazard when exposed to heat or flame. Moderate explosion hazard when exposed to heat or flame EXTINGUISHING MEDIA: Dry chemical or carbon dioxide

VI. ACCIDENTAL RELEASE MEASURES

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

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, and should not be used beyond expiration date.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL & ACGIH TLV: 200 ppm TWA n-propanol 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: LiquidAPPEARANCE: ColorlessODOR: Ethanol-likeSPECIFIC GRAVITY: 0.80 @ 20°CSOLUBILITY IN WATER: MisciblepH: 8.5 at 200 g/L @ 20°CBOILING POINT: 97°CMELTING POINT: -127°CVAPOR PRESSURE: N/AVAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong oxidizing agents HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

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

XII. ECOLOGICAL INFORMATION

No 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: 9 UN No.: 3316 Packing Group: II

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:

EU Symbols: F - HIGHLY FLAMMABLE, Xi - IRRITANT

Risk $\dot{P}hrases:$ Highly flammable. Risk of serious damage to eyes. Vapors may cause drowsiness and dizziness.

Safety Phrases: Keep away from sources of ignition – No smoking. 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: B2, D2B

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

U.S. INFORMATION: RCRA: Contains RCRA regulated substances. EPA Waste ID No.: D001 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.

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SAFETY DATA SHEET

R1002-2 Creation Date: 2012-07-16 Revision Date: 2012-08-01

I. CHEMICAL IDENTIFICATION

PRODUCT TRADE NAME:

Double-Tipped Ampoules for Filming Amines CHEMets® Kit and Refill (R-1002)

COMPONENTS OF PRODUCT PART NOS .:

R-1000, R-1000E, K-1001, K-1001E Complete kits and refills 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 double-tipped ampoule contains approximately 4 mL of liquid reagent.

II. HAZARDS IDENTIFICATION

Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Limited evidence of carcinogenic effect. Corrosive. Causes burns.

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

ACUTE TOXICITY: Burns, irritation, cough, pain, dizziness, nausea, vomiting, eye damage, headache, drowsiness, CNS effects

CHRONIC TOXICITY: Irritation, dermatitis, liver or kidney damage

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

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: CAS NO.:	Methyl Orange 547-58-0	PERCENT:	< 0.1
COMPONENT: CAS NO.:	Hydrochloric Acid 7647-01-0		
COMPONENT: CAS NO.:	Sodium Acetate, 6131-90-4		< 1
COMPONENT: CAS NO.:	Sodium Chloride 7647-14-5	PERCENT:	2
COMPONENT: CAS NO.:	Acetic Acid, Glaci 64-19-7		9
COMPONENT: CAS NO.:	Deionized Water 7732-18-5	PERCENT:	16
COMPONENT: CAS NO.:	Chloroform 67-66-3	PERCENT:	71

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 cupsful of milk or water. Never give anything by mouth to an unconscious person. Seek medical attention.

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: 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 this product.

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, and should not be used beyond expiration date.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 50 ppm C chloroform, 10 ppm TWA acetic acid, 5 ppm C hydrochloric acid

ACGIH TLV: 10 ppm TWA chloroform, 10 ppm TWA acetic acid, 2 ppm C hydrochloric acid

PROTECTIVE EQUIPMENT: Impact- and splash-resistant eyewear; Protective gloves compatible with the hazardous reagent constituents identified on this SDS. Nitrile, neoprene, PVC, and natural latex rubber gloves are not recommended.

IX. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Pleasant sweet ethereal STATE: Liquid APPEARANCE: Two phase: Reddish Orange / Colorless to pale yellow SOLUBILITY IN WATER: 0.82% @ 20°C (chloroform) pH: 1.18 (aqueous layer) SPECIFIC GRAVITY: 1.0 (aqueous layer), 1.49 (chloroform) BOILING POINT: 62°C (chloroform) MELTING POIN VAPOR PRESSURE: 160 mm Hg @ 20°C (chloroform) MELTING POINT: -64°C (chloroform) VAPOR DENSITY: 4.12 (chloroform)

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: strong bases, strong oxidizers, metals HAZARDOUS DECOMPOSITION PRODUCTS: chlorine gas, phosgene gas, oxides of carbon and sodium Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: Hydrochloric acid: IARC - Group 3, not classifiable as to its carcinogenicity to humans Chloroform: IARC - Group 2B, possibly carcinogenic to humans; ACGIH - Group A3, confirmed animal carcinogen with unknown relevance to humans; California Proposition 65 - carcinogen; NTP - Reasonably anticipitated to be a human carcinogen. No other data available at this time.

XII. ECOLOGICAL INFORMATION

Acetic acid has high BOD which may cause oxygen depletion in aquatic systems and is expected to biodegrade rapidly. Chloroform is not expected to bioconcentrate. Hydrochloric acid hydrolyzes when exposed to water, will neutralize soil carbonate-based components, and evaporates from soil. 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: 9 UN No.: 3316 Packing Group: II

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION:

EU Symbols: Xn - HARMFUL, C - CORROSIVE

Risk Phrases: Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Limited evidence of carcinogenic effect. Causes 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. If swallowed, seek medical advice immediately and show the container or label. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).



SAFETY DATA SHEET

R1002-2 Creation Date: 2012-07-16 Revision Date: 2012-08-01

XV. REGULATORY INFORMATION (continued)

CANADIAN INFORMATION: WHMIS Classification: D1B, D2A, D2B, 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.: D002, D022, U044 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 chloroform 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 carcinogen.

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

XVI. OTHER INFORMATION

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