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:** 04/22/86 (1072-21) **Revision Date:** 11/29/11

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAMES: DISSOLVED OXYGEN CHEMets® Refills, ULR CHEMets®

Refill, and Vacu-vials® Kit

CATALOG NOS.: R-7501, R-7501L, R-7501V, R-7511, R-7518, R-7540,

R-7540G, R-7540V, and K-7553

DESCRIPTION: Reagent ampoules for the determination of dissolved oxygen in water. (Note: Complete CHEMets® and ULR CHEMets® kits contain reagent ampoules and color comparators. See comparator MSDS also.) Each CHEMet™ ampoule contains approximately 0.5 mL of liquid reagent sealed under vacuum. Each ULR CHEMet™ ampoule contains approximately 1 mL of liquid reagent sealed under vacuum. Each Vacu-vial™ ampoule contains approximately 2 mL of liquid reagent sealed under vacuum.

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

II. HAZARDS IDENTIFICATION

Harmful if swallowed.

ACUTE TOXICITY: Irritation, nausea, diarrhea, nerve depression CHRONIC TOXICITY: Irritation, liver or kidney lesions

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

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Diethylene Glycol

PERCENT: 27.0 - 31.0 CAS NO .: 111-46-6

COMPONENT: **Deionized Water**

CAS NO .: 7732-18-5 PERCENT: > 68

COMPONENT: Other components

CAS NO.: 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

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

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

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 should not be used beyond expiration date.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL & ACGIH TLV: N/A

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 to pale yellow ODOR: None

SOLUBILITY IN WATER: Miscible pH: 11.5
BOILING POINT: 150°C MELTING POINT: -5.0°C VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.03

VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Acids HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

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

XII. ECOLOGICAL INFORMATION

Diethylene glycol has a low bioconcentration potential and is practically nontoxic 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

Not regulated.

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION: EU Symbols: Xn - HARMFUL Risk Phrases: Harmful if swallowed.

Safety Phrases: If swallowed, seek medical advice immediately and show

container or label.

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.

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After Hours Emergency Nos.: (703) 447-9550 (540) 272-3874

Creation Date: 12/08/08 (2984-6)

Revision Date: 09/14/11

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: COLOR COMPARATOR

CATALOG NOS.:

C-1805, C-1805E, C-2810, C-2810A, C-2810B, C-2810C, C-2810D, C-3810, C-3901, C-3902, C-4601, C-4601A, C-4601B, C-4601C, C-4601D, C-4605, C-4605A, C-4605B, C-4605C, C-4605D, C-4815, C-4815C, C-6502, C-6502D, C-7501, C-7501L, C-7511, C-7518, C-7540, C-7599, C-9011

DESCRIPTION: Color standard ampoules used to quantify test results for the determination of various analytes in water. Each CHEMet™ and VACUette™ comparator ampoule contains approximately 1.7 mL of liquid reagent. Each ULR CHEMet™ comparator ampoule contains approximately 6.7 mL of liquid reagent.

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

II. HAZARDS IDENTIFICATION

Harmful if swallowed.

ACUTE TOXICITY: Irritation, nausea, diarrhea, nerve depression

CHRONIC TOXICITY: Irritation, liver or kidney lesions

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin, liver or

kidney disorders

III. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Diethylene Glycol

CAS NO.: 111-46-6 PERCENT: < 25.0

COMPONENT: Deionized Water

CAS NO.: 7732-18-5 PERCENT: > 74

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: 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

Always wear eye protection when working with these ampoules.

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, these products 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: Various colors ODOR: None SOLUBILITY IN WATER: Miscible pH RANGE: 2.5 - 11.5 BOILING POINT: $\geq 100^{\circ}$ C MELTING POINT: $\leq 0^{\circ}$ C VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.0

VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: acids, bases

HAZARDOUS DECOMPOSITION PRODUCTS: oxides of carbon

Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

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

XII. ECOLOGICAL INFORMATION

Diethylene glycol has a low bioconcentration potential and is practically non-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

Not regulated.

XV. REGULATORY INFORMATION

EUROPEAN INFORMATION: EU Symbols: Xn - HARMFUL Risk Phrases: Harmful if swallowed.

Safety Phrases: If swallowed, seek medical advice immediately and show

container or label.

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