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After Hours Emergency Nos.: (703) 447-9550
(540) 272-3874
Creation Date: 12/19/88 (2115-10)
Revision Date: 09/15/09

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: CYANIDE CHEMets®

CATALOG NO.: R-3810

DESCRIPTION: Reagent ampoules for the determination of free cyanide in water. Each CHEMet™ contains approximately 0.5 mL of liquid reagent sealed under vacuum.

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

II. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT: Barbituric Acid
CAS NO.: 67-52-7 PERCENT: 1.0

COMPONENT: Sodium Hydroxide
CAS NO.: 1310-73-2 PERCENT: 1.2

COMPONENT: Isonicotinic Acid
CAS NO.: 55-22-1 PERCENT: 2.0

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: >95.8

III. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation, nausea, diarrhea

CHRONIC TOXICITY: Irritation

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No data available.

IV. FIRST AID MEASURES

EYE AND SKIN CONTACT: Immediately flush eyes and skin with water for 15 minutes.

INGESTION: 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 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, should not be used beyond expiration date.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 2 mg/m³ TWA Sodium Hydroxide, ACGIH TLV: 2 mg/m³ C Sodium Hydroxide

PROTECTIVE EQUIPMENT: Safety glasses

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless to Pale Straw Yellow

ODOR: None SPECIFIC GRAVITY: 1.0

SOLUBILITY IN WATER: Complete pH: 10

BOILING POINT: 103°C MELTING POINT: 2°C

VAPOR PRESSURE: N/A VAPOR DENSITY: N/A

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Acids

HAZARDOUS DECOMPOSITION PRODUCTS: oxides of sodium, nitrogen and carbon

Stable under normal conditions.

XI. TOXICOLOGICAL INFORMATION

CARCINOGENIC STATUS: None

No other data available at this time.

XII. ECOLOGICAL INFORMATION

Sodium hydroxide is not expected to biodegrade or bioconcentrate.

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: Xi - IRRITANT

Risk Phrases: Irritating to eyes and skin.

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: D2B

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

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.

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Creation Date: 01/05/89 (2122-11)
Revision Date: 09/15/09

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: CYANIDE ACTIVATOR SOLUTION

CATALOG NO.: A-3801

DESCRIPTION: An accessory solution used in conjunction with reagent ampoules in the determination of free cyanide in water. Each bottle contains approximately 18 mL of accessory solution.

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

II. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT: Sodium Hypochlorite
CAS NO.: 7681-52-9 PERCENT: 0.6

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: 99.4

III. HAZARDS IDENTIFICATION

Caution! Contact with acid may liberate toxic gas.
ACUTE TOXICITY: Irritation
CHRONIC TOXICITY: Irritation
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No data available.

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

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL & ACGIH TLV: None established
PROTECTIVE EQUIPMENT: Safety glasses

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless ODOR: Odor of bleach
SOLUBILITY IN WATER: Complete pH: 10.5
BOILING POINT: 100°C MELTING POINT: 0°C
VAPOR PRESSURE: 14 mm Hg @ 20°C (H₂O)
SPECIFIC GRAVITY: 1.0 VAPOR DENSITY: 0.7 (H₂O)

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Acids
HAZARDOUS DECOMPOSITION PRODUCTS: None
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 Phrases: Contact with acid liberates toxic gas.
Safety Phrases: In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible).

CANADIAN INFORMATION:
WHMIS Classification: None
All chemical components of this product are listed on Canada's DSL.

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.

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Creation Date: 12/17/91 (2123-11)
Revision Date: 09/15/09

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: CYANIDE NEUTRALIZER SOLUTION

CATALOG NOS.: A-3800 and A-3804

DESCRIPTION: An accessory solution used in conjunction with reagent ampoules in the determination of free cyanide in water. Each bottle of A-3800 contains approximately 18 mL of accessory solution. Each bottle of A-3804 contains approximately 70 mL of accessory solution.

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

II. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT: Sodium Phosphate Monobasic, Dihydrate
CAS NO.: 13472-35-0 PERCENT: < 21.5

COMPONENT: Deionized Water
CAS NO.: 7732-18-5 PERCENT: > 78.5

III. HAZARDS IDENTIFICATION

ACUTE TOXICITY: Irritation
CHRONIC TOXICITY: Irritation, may cause calcium phosphate deposits in kidneys
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Kidney disorders

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

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL & ACGIH TLV: None established
PROTECTIVE EQUIPMENT: Safety glasses

IX. PHYSICAL AND CHEMICAL PROPERTIES

STATE: Liquid APPEARANCE: Colorless ODOR: None
SOLUBILITY IN WATER: Miscible pH: 4
BOILING POINT: 106°C MELTING POINT: 3°C
VAPOR PRESSURE: Not determined SPECIFIC GRAVITY: 1.12
VAPOR DENSITY: Not determined

X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: None reported.
HAZARDOUS DECOMPOSITION PRODUCTS: oxides of phosphorus
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: Uncontrolled
All chemical components of this product are listed on Canada's DSL or are exempt.

U.S. INFORMATION:
All chemical components of this product are listed on the TSCA Inventory.

XVI. OTHER INFORMATION

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Creation Date: 2008-12-08 (2984-7)
Revision Date: 2012-02-14

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: COLOR COMPARATOR

CATALOG NOS.:

C-1805, C-1805E, C-1810, 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: ≥ 100°C MELTING POINT: ≤ 0°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.

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

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