

WTW GmbH
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WTW Inc.
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Creation Date: 06/13/05 (2952F-1)
Revision Date:

FOR CHEMICAL EMERGENCY
Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night
DOMESTIC NORTH AMERICA: 800-424-9300
INTERNATIONAL: 703-527-3887 (collect calls accepted)

MATERIAL SAFETY DATA SHEET

I. CHEMICAL IDENTIFICATION

TRADE NAME: AMMONIUM / AMMONIA Ampoules and Activator and Catalyst Solutions

MODEL NO.: NH4-4 CV

DESCRIPTION: Reagent ampoules and accessory solutions for the determination of ammonium in water. Each ampoule contains approximately 2 mL of liquid reagent sealed under vacuum. Each bottle of activator and catalyst solution contains approximately 20 mL of accessory solution.

In the Ampoules:

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

In the Activator Solution:

NFPA RATINGS: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 1

In the Catalyst Solution:

NFPA RATINGS: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 1

II. COMPOSITION/INFORMATION ON INGREDIENTS

In the Ampoules:

COMPONENT: Sodium Salicylate
 CAS NO.: 54-21-7 PERCENT: > 1.0

COMPONENT: Citric Acid, Monohydrate
 CAS NO.: 5949-29-1 PERCENT: < 0.5

COMPONENT: Sodium Hydroxide
 CAS NO.: 1310-73-2 PERCENT: 0.5

COMPONENT: Sodium Potassium Tartrate, Tetrahydrate
 CAS NO.: 6381-59-5 PERCENT: < 0.5

COMPONENT: Deionized Water
 CAS NO.: 7732-18-5 PERCENT: > 97.5

In the Activator Solution:

COMPONENT: Sodium Hypochlorite
 CAS NO.: 7681-52-9 PERCENT: 3.0

COMPONENT: Deionized Water
 CAS NO.: 7732-18-5 PERCENT: 97.0

In the Catalyst Solution:

COMPONENT: Sodium Nitroferricyanide, Dihydrate
 CAS NO.: 13755-38-9 PERCENT: 10.0

COMPONENT: Deionized Water
 CAS NO.: 7732-18-5 PERCENT: 90.0

III. HAZARDS IDENTIFICATION

Caution! Contact with acid liberates toxic gas.

ACUTE TOXICITY: Irritation, breathing difficulty, abdominal pain, vomiting, methemoglobinemia, cyanosis, systemic poisoning

CHRONIC TOXICITY: Irritation, dermatitis, systemic effects

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Eye, skin respiratory, CNS, thyroid, heart or lung disorders

A cyanide antidote kit should be available.

IV. FIRST AID MEASURES

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

INGESTION: Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

INHALATION: Remove individual to fresh air.

A cyanide antidote kit should be available when working with cyanide compounds.

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.

Product should be stored in the dark and at room temperature; however, temperatures up to 120 °F or even below freezing will not normally affect reagent performance.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA PEL: 2 mg/m³ TWA Sodium Hydroxide, 1 ppm Sodium Hypochlorite

ACGIH TLV: 2 mg/m³ C Sodium Hydroxide, 1 mg/m³ TWA iron

PROTECTIVE EQUIPMENT: Safety glasses, protective gloves

IX. PHYSICAL AND CHEMICAL PROPERTIES

In the Ampoules:

STATE: Liquid APPEARANCE: Colorless ODOR: None

SOLUBILITY IN WATER: Miscible pH: 12.5

BOILING POINT: 100°C MELTING POINT: N/A

VAPOR PRESSURE: Not determined SPECIFIC GRAVITY: 1.0

VAPOR DENSITY: Not determined

In the Activator Solution:

STATE: Liquid APPEARANCE: Colorless to yellow ODOR: Chlorine-like

SOLUBILITY IN WATER: Miscible pH: 11

BOILING POINT: 104 °C decomposes slightly MELTING POINT: -6 °C

VAPOR PRESSURE: 17.5 @ 20 °C SPECIFIC GRAVITY: 1.0

VAPOR DENSITY: Not Determined

In the Catalyst Solution:

STATE: Liquid APPEARANCE: Red ODOR: None

SOLUBILITY IN WATER: Miscible pH: 3.1

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

VAPOR PRESSURE: N/A SPECIFIC GRAVITY: 1.0

VAPOR DENSITY: N/A

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X. STABILITY AND REACTIVITY

INCOMPATIBILITIES: Metals, acids, strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition, chlorine, hydrogen cyanide, and oxides of sodium and carbon may be emitted.

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: Xn - HARMFUL

Risk Phrases: Contact with acids liberates toxic gas. Harmful by inhalation, in contact with skin, and if swallowed.

Safety Phrases: Do not mix with acid. Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves, and eye/face protection. In case of contact with skin or eyes, rinse 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: D2A, D1B, D2B, C, E

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

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.