



American International Chemical, Inc.

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MATERIAL SAFETY DATA SHEET

1H-TETRAZOLE/ACETONITRILE

SECTION 1 - CHEMICAL PRODUCT AND COMPANY INFORMATION

American International Chemical, Inc. 135 Newbury Street Framingham, MA 01701	Emergency Number: Chemtrec Information Number:	800-424-9300 703-527-3887 800-238-0001
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Date: August 2007

Synonyms: DNA Synthesis Reagent, Activator Solution

CAS #: 1-H-Tetrazole 288-94-8
Acetonitrile 75-05-8

DOT Hazard Class: Flammable Liquid/Poisonous UN 1993

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

1-H Tetrazole in Acetonitrile – 100%

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Colorless liquid mixture with an ether-like odor that is flammable and can be irritating to the skin, eyes and respiratory tract. May be poisonous if inhaled or absorbed through the skin. Keep away from oxidizers. Will produce toxic vapors in a fire.

POTENTIAL HEALTH EFFECTS:

Skin: Can cause skin irritation.

Eyes: Can cause irritation or burning.

Inhalation: Can cause irritation to the respiratory tract.

Ingestion: High concentrations may cause nausea, vomiting, respiratory depression, weakness, chest or abdominal pain, vomiting of blood, convulsions, shock, unconsciousness and death.

CARCINOGENICITY: Not Identifiable

SECTION 4 - FIRST AID MEASURES

Skin: Immediately wash skin with soap and water for at least 15 minutes.

Eyes: Immediately flush with plenty of water for at least 15 minutes, holding eye lids apart.

Inhalation: Remove to the fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: Wash out mouth with water.

On All Of The Above: Consult a physician if symptoms persist.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 5.6 °C (42 °F)

Flammable Limits: LEL 4.4% UEL 16.05%

Extinguishing Media: Use dry chemical, alcohol foam, carbon dioxide and Halon.

Special Fire Fighting Procedures:

Use fire fighting procedure that is appropriate to treat surrounding fire. All firefighters should use self-contained breathing apparatus and full fire-fighting turn-out gear.

Unusual Fire Explosion Hazard: Water spray may be ineffective in cooling containers exposed to fires.

Auto Ignition Temperature: Not Available

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all ignition sources. Contain spilled liquid with sand or earth. Place in a disposal container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7 - HANDLING AND STORAGE

Handle as a flammable liquid. Use with adequate ventilation. Do not breathe vapor. Store in a secure well ventilated location suitable for flammable materials. Keep away from heat, sparks and flame.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators.

VENTILATION REQUIREMENTS: Ventilate as necessary to eliminate vapors from the work area and maintain concentrations below the limit.

SKIN AND EYE PROTECTION: Use rubber or neoprene gloves, chemical goggles and clothing sufficient to protect skin from vapors.

WORK, HYGIENIC PRACTICES:

As required to protect skin and eyes from vapors, safety showers and/or eye wash should be available. Do not leave food or smoke in work area. Wash thoroughly and remove or clean any contaminated clothing.

EXPOSURE LIMITS: Acetonitrile: IDLH 500 ppm.

	OSHA	TWA	STEL
		40 ppm	---
	NIOSH	20 ppm	--
	ACGIH	40 ppm	60 ppm

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Not Applicable

Vapor Pressure (MM Hg): Not Applicable

Vapor Density (AIR=1): 1.3 (Acetonitrile)

Specific Gravity (H₂O=1): Not Applicable

Percent Volatile by Volume (%): 97.5%

Melting Point: Not Applicable

Evaporation Rate (Butyl Acetate=1): 5.8

Solubility in Water: Complete

pH: Not Applicable

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal temperatures and pressures.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may release toxic vapors and gases, including carbon monoxide, oxide of nitrogen and hydrogen sulfide.

KEEP AWAY FROM: Strong oxidizers and source of ignition.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acetonitrile – LD₅₀ – RATS – 3.8g/kg

SECTION 12 - ECOLOGICAL INFORMATION

Not Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations.

RCRA WASTE #: Acetonitrile – U003

SECTION 14 - TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME:.....Flammable Liquids, N.O.S. Acetonitrile/1-H Tetrazole

TECHNICAL SHIPPING NAME:..... Acetonitrile/1-H Tetrazole

U.N./NUMBER..... 1993

D.O.T. HAZARD CLASS AND GROUP NUMBER 3, II.....

D.O.T. PLACARD..... Flammable

PRODUCT LABEL..... Flammable/Poisonous

SECTION 15 - REGULATORY INFORMATION

OSHA STATUS: Listed

TSCA STATUS: Listed

CERCLA REPORTABLE REQUIREMENTS: (RQ) Acetonitrile – 5,000 lbs

SARA TITLE III INFORMATION:

Section 302 Extremely Hazardous Substance Not listed

Section 313 Toxic Chemicals: Listed (Acetonitrile)

Section 311/312 Hazard Category: Fire, Immediate (Acute), Delayed (Chronic), Sudden Release of Pressure.

SECTION 16 - OTHER INFORMATION

NFPA Rating; (as Acetonitrile) Health 2 Fire 3 Reactivity 0

Reason for Issue: Changed Date

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