



American International Chemical, Inc.

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MATERIAL SAFETY DATA SHEET

5-ETHYLTHIO-1H-TETRAZOLE IN ACETONITRILE 0.25M SOLUTION

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: ETT Activator Solution, ETT in Acetonitrile

CAS #: Not Applicable

DOT Hazard Class: Acetonitrile Solution
Class 3, UN1648 PG II

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS #	% Weight
Acetonitrile	75-05-8	>90%
5-Ethylthio-1H-Tetrazole	89797-68-2	<10%

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: A clear liquid that is extremely flammable and has a flammable vapor. Vapor may cause flash fire. Harmful if inhaled, swallowed or absorbed through the skin. Contains material, which causes damage to the following organs: Kidneys, liver, respiratory tract, skin, central nervous system, eye, lens or cornea. May cause respiratory tract, eye and skin irritation.

POTENTIAL HEALTH EFFECTS:

Skin: May cause irritation.

Eyes: May cause irritation or burning.

Inhalation: May cause irritation to the respiratory tract.

Ingestion: May cause irritation or burning.

CARCINOGENICITY: Not listed as a cancer-causing agent.

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 eyelids apart.

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

Ingestion: Wash out mouth with water. Do not induce vomiting; if conscious, give water and get medical attention.

On All Of The Above: Seek medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 42 °F (Acetonitrile)

Flammable Limits: Lower: 4.4%; Upper: 16.0% (Acetonitrile)

Products of combustion: Hydrogen Cyanide, toxic fumes.

Extinguishing Media: Use dry chemical powder, alcohol foam, water spray or fog. Use water to cool fire-exposed containers and disperse vapors.

Special Fire Fighting Procedures: All firefighters should use self-contained breathing apparatus and full fire-fighting turn-out gear.

Unusual Fire Explosion Hazard: Highly flammable in the presence of open flames, sparks or static discharge, of shocks, of heat, of oxidizing materials. Risk of explosion of the product in presence of static discharge. Vapor may travel considerable distance to source of ignition and flash back. (Acetonitrile)

Auto Ignition Temperature: 975.2 °F (Acetonitrile)

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Wear suitable protective equipment listed under Exposure Controls, Personal Protection below.

Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards.

Contain spilled liquid with inert material, sand or earth. Place in a disposal container. Avoid runoff into storm sewers and ditches which lead to waterways

SECTION 7 - HANDLING AND STORAGE

Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Use normal personal hygiene and housekeeping. Keep container closed. Store in cool dry area well ventilated away from ignition sources.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators.

VENTILATION REQUIREMENTS: Use in an approved fume hood or with adequate ventilation.

SKIN AND EYE PROTECTION: Use PVA or equivalent gloves, chemical goggles and clothing sufficient to protect skin.

WORK, HYGIENIC PRACTICES:

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:

OSHA VPEL 40.000 ppm – TWA

OSHA VPEL 60.000 ppm – STEL

ACGIH TLV 40.000 ppm – TWA

ACGIH TLV 60.000 ppm – STEL

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 117.1 °F @ 760 mmHg (Acetonitrile)

Vapor Pressure: 72.8 mmHg @ 68 °F (Acetonitrile)

Vapor Density (AIR=1): 1.410 (Acetonitrile)

Specific Gravity (H₂O=1): 0.782 – 0.786 @ 68 °F (Acetonitrile)

Percent Volatile by Volume (%): Not Available

Melting Point: Not Available

Evaporation Rate: Slower than ethyl ether.

Solubility in Water: Soluble

pH: Not Available

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal temperatures and pressures.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: May form carbon dioxide, carbon monoxide, hydrogen cyanide, and nitrogen oxides.

KEEP AWAY FROM: Heat, contact with ignition sources. Highly reactive with oxidizing agents, reducing agents, acids and alkalis.

SECTION 11 - TOXICOLOGICAL INFORMATION

Oral rat LD50: 2460 mg/kg
Skin Rabbit LD50: 1250 uL/kg
Inhalation rat LC50: 7551 ppm/8 hrs.
Investigated as a tumorigen, mutagen, and reproductive effector.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, this material may leach into groundwater and is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent, is expected to quickly evaporate. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals, expected to have a half-life of greater than 30 days and may be removed from the atmosphere to a moderate extent by wet deposition.

Environmental Toxicity: The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Acetonitrile Solution
TECHNICAL SHIPPING NAME: SAME
U.N./NUMBER: UN1648
D.O.T. HAZARD CLASS AND GROUP NUMBER: 3, II
RQ: 5000 lbs
D.O.T. PLACARD: Flammable Liquid
PRODUCT LABEL: ETT Activator Solution
OTHER INFORMATION: None

SECTION 15 - REGULATORY INFORMATION

OSHA STATUS: Not Known

TSCA STATUS: This product is a mixture. The CAS numbers of all components are listed on the TSCA inventory.

CERCLA REPORTABLE REQUIREMENTS: (RQ)
Acetonitrile – 5000

SARA TITLE III INFORMATION:
Section 302 Extremely Hazardous Substance: Not listed

Section 313 Toxic Chemicals: Listed (Acetonitrile)

Section 311/312 Hazard Category: Acetonitrile: Fire hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.

SECTION 16 - OTHER INFORMATION

NFPA Rating: Health (2) Fire (3) Reactivity (0)

Reason for issue: Changed Date

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