



American International Chemical, Inc.

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MATERIAL SAFETY DATA SHEET

CUSTOM ACTIVATOR SOLUTION (0.50M ETT in ACN W/2eq Pyridine)

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: October 2007

Synonyms: ETT and Pyridine in Acetonitrile

CAS #: Not Applicable

DOT Hazard Class: Acetonitrile Solution
Hazard Class 3 UN1648 PGII

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS#</u>	<u>% by Weight</u>
Acetonitrile	75-05-8	>90%
Pyridine	110-86-1	<10%
5-Ethylthio-1H-Tetrazole	89797-68-2	<1%

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: A clear, colorless liquid that is flammable. Can cause irritation to any area of contact or inhalation. Harmful or fatal if swallowed, inhaled or absorbed through the skin. Vapor is harmful and flammable.

POTENTIAL HEALTH EFFECTS:

Skin: May cause mild skin irritation.

Eyes: Can cause eye irritation

Inhalation: Breathing of vapor is possible. Breathing small amounts during normal handling of the material is not likely to cause harmful effects. Breathing large amounts may be harmful.

Ingestion: Swallowing small amounts during normal handling of the material is not likely to cause harmful effects. Swallowing large amounts may be harmful.

CARCINOGENICITY: Not Identifiable

SECTION 4 - FIRST AID MEASURES

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

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 100% supplemental oxygen. **DO NOT GIVE MOUTH-TO-MOUTH RESUSITATION.**

Ingestion: If swallowed, **DO NOT INDUCE VOMITING.** If not breathing, give artificial respiration. **DO NOT GIVE MOUTH-TO-MOUTH RESUSITATION.**

On All Of The Above: Call a physician and get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Data for Acetonitrile:

Flash Point: 5.5 °C (42 °F).

Explosive Limits: Lower limit: 4.4%; Upper limit: 16%

Extinguishing Media: Dry chemical, alcohol foam, water fog or carbon dioxide.

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 turnout gear. Water spray may be used to keep fire-exposed container cool.

Unusual Fire Explosion Hazard: Vapors can flow along surfaces to distant ignition source and flash back.

Auto Ignition Temperature: 524 °C (975.2 °F)

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Isolate hazard area and deny entry to unnecessary or unprotected personnel. Ventilate area. Remove all sources of ignition. Contain spilled liquid with sand or earth. Place in a disposal container. Do not allow runoff into storm sewers and ditches that lead to waterways

SECTION 7 - HANDLING AND STORAGE

Avoid contact with skin, eyes and clothing. Use with adequate ventilation. Avoid breathing vapor. Use normal personal hygiene and housekeeping. Store in cool dry area away from other incompatible materials. Do not store exposed to direct light.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators.

VENTILATION REQUIREMENTS: Ventilate as necessary to eliminate vapor 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 and eyes.

SECTION 8 Continued:**WORK, HYGIENIC PRACTICES:**

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

EXPOSURE LIMITS:

Data for Acetonitrile:

OSHA VPEL: 40ppm-TWA

OSHA VPEL: 60ppm-STEL

ACGIH TLV: 40ppm-TWA

ACGIH TLV: 60ppm-STEL

Data for Pyridine:

OSHA VPEL: 5ppm-TWA

ACGIH TLV: 5ppm-TWA

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Data for Acetonitrile:

Boiling Point: 117.1 °F (47.2 °C) @ 760mmHg

Vapor Pressure (MM Hg): 72.8 mmHg @ 68 °F

Vapor Density (AIR=1): 1.410

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

Percent Volatile by Volume (%): Not Applicable

Melting Point: Not Applicable

Evaporation Rate: Slower than Ethyl Ether.

Solubility in Water: Soluble in water.

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 and carbon monoxide, hydrogen cyanide, nitrogen oxides.

KEEP AWAY FROM: Heat, flame, strong oxidizers, weak alkalies, and strong mineral acids.

SECTION 11 - TOXICOLOGICAL INFORMATION

Data for Acetonitrile:

Oral rat LD50: 2460 mg/kg

Skin rabbit LD50: 1250 uL/kg

Inhalation rat LC50: 7551 ppm/8H

Investigated as a tumorigen, mutagen and reproductive effector.

Data for Pyridine

Oral rat LD50: 891 mg/kg

Inhalation rat LC50: 28500 mg/m³/1H

Skin rabbit LD50: 1121 mg/kg

Irritation data: open Draize, skin, rabbit: 10 mg/24H mild. Standard Draize, eye, rabbit: 2 mg severe.

Investigated as a tumorigen and mutagen.

Reproductive Toxicity: Has shown some evidence of reproductive effects in laboratory animals.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate: When released into the soil, substance may evaporate to a moderate extent. It is expected to leach into groundwater. In water, substance may evaporate to a moderate extent.

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

SECTION 13 - DISPOSAL CONSIDERATIONS

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

RCRA WASTE #: Not Listed

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: Hazard class 3 PGII

D.O.T. PLACARD: Flammable Liquid

PRODUCT LABEL: Custom Activator Solution

