



# American International Chemical, Inc.

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## MATERIAL SAFETY DATA SHEET

### DITHIOTHREITOL

#### 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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Revision Date: August 2007

Synonyms: DTT

CAS #: 3483-12-3 and 27565-41-9

DOT Hazard Class: Not Regulated

#### SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Dithiothreitol (DTT)

#### SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: White crystals with thio odor. Toxic irritation. \*May release toxic fumes in a fire.

POTENTIAL HEALTH EFFECTS:

**Eyes:** Causes irritation.

**Skin:** Skin: Causes irritation, may be absorbed.

**Inhalation:** Harmful, irritating, exposure can cause nausea, headache and vomiting.

**Ingestion:** Harmful if ingested, exposure can cause nausea, headache and vomiting.

CARCINOGENICITY: Not listed under OSHA, IARC, or NTP.

#### SECTION 4 - FIRST AID MEASURES

**Eyes:** Flush eyes with water for at least 15 minutes and get medical attention.

**Skin:** In case of contact, immediately flush area with plenty of water.

**Inhalation:** If inhaled, remove victim to fresh air, If not breathing, give artificial respiration. If breathing is difficult, give oxygen and obtain medical attention.

**Ingestion:** If ingested, drink plenty of fluids and obtain medical attention

## **SECTION 5 - FIRE FIGHTING MEASURES**

Flash Point: > 230° F

Flammable Limits: Not Applicable

Extinguishing Media: Water spray, carbon dioxide, dry chemical, alcohol or polymer foam.

Special Fire Fighting Procedures:

Use fire fighting procedure that is appropriate to treat surrounding fire.

Unusual Fire Explosion Hazard: None Known

Auto Ignition Temperature: Not Available

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## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

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

Contain spill and place in a disposal container.

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## **SECTION 7 - HANDLING AND STORAGE**

Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use good personal hygiene and housekeeping. Store at 2-8°C under nitrogen - away from oxidizers.

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## **SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirators.

VENTILATION REQUIREMENTS: Ventilate as necessary to eliminate dust from the work area.

SKIN AND EYE PROTECTION:

Use rubber or neoprene gloves, chemical goggles and clothing sufficient to protect skin from dust.

WORK, HYGIENIC PRACTICES:

As required to protect skin and eyes from dust. 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 GUIDELINES: None Established

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## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: Not Available

Vapor Pressure (MM Hg): Not Applicable

Vapor Density (AIR=1): Not Applicable

Specific Gravity (H2O=1): >1

Percent Volatile by Volume (%): Not Applicable

Melting Point: 41° C

Evaporation Rate (Butyl Acetate=1): Not Applicable

Solubility in Water: Appreciable

pH: 4.3 (5% solution)

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## **SECTION 10 - STABILITY AND REACTIVITY**

CHEMICAL STABILITY: Stable under normal temperature of pressure.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce toxic fumes of carbon monoxide, carbon dioxide and oxides of Sulfur.

KEEP AWAY FROM: Strong oxidizing agents.

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## **SECTION 11 - TOXICOLOGICAL INFORMATION**

LD<sub>50</sub> Intraperitoneal, Mouse 169 mg/kg

LD<sub>50</sub> RAT 400 mg/kg

EVIDENCE OF CARCINOGENICITY, TERATOGENICITY, REPRODUCTIVE TOXICITY, MUTAGENICITY: DNA inhibition observed in rat livers 1mmol/L RTECS

Reference Number: X08576500

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## **SECTION 12 - ECOLOGICAL INFORMATION**

Not available

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## **SECTION 13 - DISPOSAL CONSIDERATIONS**

Dithiothreitol

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

RCRA WASTE #: Not Listed

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#### **SECTION 14 - TRANSPORTATION INFORMATION**

DOT HAZARD CLASS: Not Regulated

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#### **SECTION 15 - REGULATORY INFORMATION**

CERCLA REPORTABLE REQUIREMENTS: (RQ) None

SARA TITLE III INFORMATION:

Section 302 Extremely hazardous Substance: Unlisted

Section 313 Toxic Chemicals: Unlisted

Section 311/312 Category: Acute health, chronic health hazard unknown

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#### **SECTION 16 - OTHER INFORMATION**

Reason for Change: Changed Date

DOT Hazard Label: **Caution: Possible risk of irreversible effects, irritating to skin, eyes and respiratory system. Avoid eye and skin contact. Avoid inhalation and ingestion.**

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