

MATERIAL SAFETY DATA SHEET



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SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG#: IB21040 & IB21045
NAME: DTT (DITHIOTHREITOL)
CAS#: 3483-12-3

SECTION 2. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

IRRITANT

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

TOXIC

HARMFUL BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.

TARGET ORGAN(S):

CENTRAL NERVOUS SYSTEM

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

WEAR SUITABLE PROTECTIVE CLOTHING.

HMIS: NFPA:

H: 3 H: 2

F: 1 F: 1

R: 1 R: 1

PE: I SH: N/A

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

MF: C₄H₁₀O₂S₂

MW: 154.25

EC NO: 248-531-9

CAS#: 3483-12-3

SYNONYMS

2,3-BUTANEDIOL, 1,4-DIMERCAPTO-, DL-THREO- * 2,3-BUTANEDIOL, 1,4-DIMERCAPTO-, (R*,R*)-(+)- (9CI) * CLELAND'S REAGENT * DL-THREO-1,4-DIMERCAPTO-2,3-BUTANEDIOL * (R*,R*)-(+)-1,4-DIMERCAPTO-2,3-BUTANEDIOL * DITHIOTHREITOL * DL-DITHIOTHREITOL * DL-1,4-DITHIOTHREITOL * RAC-DITHIOTHREITOL *

SECTION 4. ----- FIRST-AID MEASURES-----

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.
DISCARD CONTAMINATED CLOTHING AND SHOES.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES -----

EVACUATE AREA.

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, BOOTS AND HEAVY GLOVES.

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.

AVOID RAISING DUST.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. ----- HANDLING AND STORAGE -----

DO NOT BREATHE DUST.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

WASH THOROUGHLY AFTER HANDLING.

KEEP TIGHTLY CLOSED.

HYGROSCOPIC

STORE IN A COOL DRY PLACE.

STORE AT -20°C.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION -----

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.

USE ONLY IN A CHEMICAL FUME HOOD.

SAFETY SHOWER AND EYE BATH.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE

SOLID.

UNPLEASANT ODOR.

PHYSICAL PROPERTIES

MELTING POINT: 42°C TO 43°C

FLASHPOINT >109°C (>228°F)

SECTION 10. -----STABILITY AND REACTIVITY -----

STABILITY
 STABLE.
 INCOMPATIBILITIES
 BASES
 MOISTURE
 OXIDIZING AGENTS
 REDUCING AGENTS
 ALKALI METALS
 MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
 TOXIC FUMES OF:
 CARBON MONOXIDE, CARBON DIOXIDE
 SULFUR OXIDES
 HYDROGEN SULFIDE GAS
 HAZARDOUS POLYMERIZATION
 WILL NOT OCCUR.

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ACUTE EFFECTS
 HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
 CAUSES EYE AND SKIN IRRITATION.
 MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT.
 EXPOSURE CAN CAUSE:
 NAUSEA, HEADACHE AND VOMITING
 CNS DEPRESSION
 CHRONIC EFFECTS
 TARGET ORGAN(S):
 CENTRAL NERVOUS SYSTEM
 TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
 TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.
 RTECS #: XO8576500
 THREITOL, 1,4-DITHIO-, DL-
 TOXICITY DATA
 ORL-RAT LD50: 400 MG/KG
 IPR-MUS LD50:169 MG/KG JMC MAR 15,600,1972
 SCU-MUS LD50:333 MG/KG ARZNAD 22,1434,1972
 IVN-MUS LD50:94 MG/KG ARZNAD 22,1434,1972
 ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
 (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
 COMPLETE INFORMATION.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

DATA NOT YET AVAILABLE.

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----

NOT REGULATED.

SECTION 15. REGULATORY INFORMATION

EUROPEAN INFORMATION

TOXIC BY INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.



Toxic (T)

R 23/24/25

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.



Irritant (Xi)

R 36/37/38

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

S: 36/37/39

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

NOES 1983: HZD X2950; NIS 1; TNF 35; NOS 3; TNE 627; TFE 436

SECTION 16. OTHER INFORMATION

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