

# DTT

## MATERIAL SAFETY AND DATA SHEET

Section 1	Chemical Product and Company Identification	
<b>Name</b>	nom DTT (DL-Dithiothreitol)	Cat.# UP284250-1g, UP284255-5g, UP28425F-25g
<b>Synonyms</b> (CAS, chemical names, tradename, abbreviates...)	DL-Dithiothreitol Cas : [3483-12-3] RTECS :XO8576500 MF : C4H10O2S2 EC NO : 248-531-9 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-1,4- Dithiothreitol Rac- Dithiothreitol	98.5%
<b>Company identification</b>	UPTIMA-INTERCHIM	213 J.F.Kennedy, 03100 Montluçon (FRANCE) Tel. :+33 (0)4 70 03 88 55 Fax: +33 (0)4 70 03 82 60 e-mail: <a href="mailto:uptima@interchim.com">uptima@interchim.com</a>
<b>In case of Emergency</b>	In Europe: Call UPTIMA-INTERCHIM out of office: Centre anti Poisons de Lyon In US: call CHEMTREC	Tel.: +33 4 70 03 88 55 Tel.: +33 4 72 11 69 11 Tel.: 800;424;9300

Section 2	Composition, Information on Ingredients	
Component	Hazardous ingredients (Identification, CAS, Name...)	Information (% weight, state...)
# UP284250-1g, UP284255-5g, UP28425F-25g	DL-Dithiothreitol Cas : [3483-12-3] RTECS :XO8576500 MF : C4H10O2S2 EC NO : 248-531-9 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-1,4- Dithiothreitol Rac- Dithiothreitol...	98.5%, powder

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<b>Section 3 Hazards Identification</b>	
<b>Label precautionary statement</b>	irritant Irritant to eyes, respiratory system and skin Unpleasant odor
<b>Emergency overview</b>	In case of contact, rinse immediately with plenty of water and seek medical advice. Take off all contaminated clothing.
<b>Acute health effects (Eye, Skin, Ingestion, Inhalation, Chronic)</b>	Target organs: central nervous system In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
<b>Other information (over-exposure, toxicity...)</b>	See section 11
<b>Precautionary guidelines</b>	Wear suitable protective clothing, gloves and eye/face when handling to avoid contact

<b>Section 4 First aid Measures</b>	
<b>General measures</b>	Remove contaminated clothing promptly. Allow the victim to rest in a well ventilated area, Seek medical attention
<b>Emergency first measures (Eyes, Skin, Ingestion, Inhalation...)</b>	In case of skin contact, wash thoroughly with soap and copious amount of water. In case of eye contact, rinse immediately at least 15 min by separating eyelids, and seek for medical advice If inhaled, remove victim to fresh air. If difficult breathing, give oxygen and obtain medical attention. If not breathing, give artificial respiration. If ingested, do NOT induce vomiting, If conscious and alert, rinse mouth, drink plenty of water, and seek for medical advice.
<b>Notes to physicians</b>	Treat symptomatically

<b>Section 5 Fire Fighting Measures</b>	
<b>Physical Information (Flammability, auto-ignition, flash point...)</b>	
<b>General information</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective clothing (see section 8) Use water spray to cool fire-exposed containers
<b>Extinguishing media</b>	In case of fire, use extinguishing media (carbon dioxide, dry chemical powder, or appropriate foam)
<b>Spills and Leaks</b>	

<b>Section 6 Accidental Release Measures</b>	
<b>General information</b>	Wear a proper personal protective equipment to avoid skin and eye exposure (see section 8): wear respirator, rubber boots, chemical resistant gloves.
<b>Spills and Leaks</b>	Sweep up or vacuum material and place into a suitable waste disposal container. Avoid raising dust Clean contaminated surfaces by spreading water. Ventilate area. Dispose off according to local and regional authority requirements. See section 13
<b>Other</b>	

<b>Section 7 Handling and Storage</b>	
<b>Handling</b>	Wear a proper personal protective equipment to avoid skin and eye exposure (see section 8)
<b>Storage</b>	Store all components well tightly closed. store in a cool dry place

<b>Section 8 Exposure Controls, Personal Protection</b>	
<b>Engineering controls</b>	Ensure there is eyewash stations and safety showers close to the work-stations. Avoid breathing vapors, and provide an exhaust ventilation if prolonged work periods.
<b>Personal protection (eyes, hands, body, respiratory...)</b>	For normal use, chemical-resistant gloves. Wear protective clothing (laboratory suit, safety goggles) to prevent skin contact. Wash or discard contaminated clothes if reused. Do not breathe dust. Use only in a chemical fume hood. Avoid prolonged or repeated exposure. Keep tightly closed, store in a cool place. In case of large spill, additional protective wears may be needed (boots, splash goggles and safety glasses...). Wear a NIOSH/MSHA or European Standard EN 149 approved full-face piece airline respirator in the positive pressure mode with emergency escape provisions
<b>Exposure limits</b>	consult local authorities

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Section 9 Physical and Chemical Properties	
<b>Physical state / Appearance</b>	Solid
<b>Odor</b>	No remarkable odor
<b>Other</b> (pH, Melting/Freezing Point, Vapor Pressure, Vapor Density, Volatility, Boiling Point, Viscosity, Flash point, Auto-ignition temperature, Explosion limits (low.Upp.), Specific Gravity / Density, Molecular Formula /MW)	Melting point: 42 to 44°C flaspoint: >230F, >110°C other datas not available
<b>Comments</b>	Stable

Section 10 Stability and Reactivity	
<b>Chemical Stability</b> <b>Chemical Reactivity</b> (conditions, by -products...)	This product is stable under normal storage and handling conditions (normal temperature and pressure)
<b>Incompatibilities</b> (conditions, materials...)	strong oxidizing agents, strong acids and bases, reducing agents, alkali metals
<b>Decomposition</b> <b>polymerisation</b> (conditions, materials...)	May decompose on exposure to moist air or water. Hazardous combustion or decomposition may happen , products of combustion are toxic fumes of carbon oxides (CO, CO2), sulfur oxides, hydrogen sulfide gas No Hazardous polymerisation
<b>Comments</b>	

Section 11 Toxicological Information	
<b>Toxicity</b> <b>in animals</b> <b>in human</b>	May be harmful by inhalation, ingestion, or skin absorption. Causes eye and skin irritation Material is irritating to mucous membranes and upper respiratory tract. Exposure can cause: nausea, headache and vomiting
<b>Chronic effects</b> (carcinogenicity, teratogenicity, reproductive toxicity, mutagenesis)	Target organs: central nervous system To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated RTECS :XO8576500 Toxicity data IPR-MUS LD50 : 169MG/KG                      JMCMAR 15, 600, 1972 SCU-MUS LD50 : 333MG/KG                    ARZNAD 22,1434,1972 IVN-MUS LD50 : 94 MG/KG                    ARZNAD 22,1434,1972
<b>Remarks</b> (RTECS...)	See actual entry in RTECS for complete information

Section 12 Ecological Information	
<b>Ecotoxicity (BOD5, COD...)</b> <b>Biodegradation</b> <b>Mobility</b>	Not available

Section 13 Disposal Considerations	
<b>Waste</b>	Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equiped with an afterburner and scrubber. Observe all local regulations.
<b>Remarks</b>	Consult your local or regional authority or a licensed professional waste service

Section 14 Transport Information	
<b>Classifications</b> (Other classifications)	Not regulated
<b>Shipping</b>	Room temperature
<b>Hazards Class</b>	
<b>UN Class</b>	

For any question,  
contact your local distributor

Uptima,  
powered by



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Section 15		Regulatory Information
<b>Classification</b>	<b>Europe</b>	* European labeling in accordance with EC directives Not Regulated according EU regulations (DSCL/EEC) Hazard symbols: IRRITANT Risk phrases: R36/37/38  Safety phrases: S36/37/39
<b>Other classifications</b>		

Section 16		Additional Information
<b>MSDS validation</b>		UPTIMA-INTERCHIM, D11A
<b>Comment</b>		<i>The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages</i>