

Preparation Date no data available

Revision date 05-26-2015

Revision number 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product name Dimacit TETD ULTRA

Other means of identification

Product code 51296

UN-No UN3077

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use rubber accelerator. Chemical intermediate.

Uses advised against No information available

Details of the Supplier of the Safety Data Sheet

Supplier Address

Taminco US Inc.
A subsidiary of Eastman Chemical Company
Two Windsor Plaza, Suite 411
7540 Windsor Drive
Allentown, PA USA 18195
T: +(800) 223-3258

Emergency telephone number

Emergency Telephone

In case of emergency call CHEMTREC 1-800-424-9300
for International calls 1-703-527-3887

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

Label Elements

Symbols/Pictograms



Signal Word
WARNING

hazard statements

Harmful if swallowed
 May cause an allergic skin reaction
 May cause damage to organs through prolonged or repeated exposure
 May form combustible dust concentrations in air

Hazards Not Otherwise Classified (HNOC)

Not Applicable

3. Composition/information on Ingredients

Chemical name	CAS-No	Weight %	Trade secret
Disulfiram	97-77-8	>99	No

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

First Aid Measures

General advice	If symptoms persist, call a physician. Show this material safety data sheet to the doctor in attendance. Use of alcoholic beverages may enhance toxic effects. Irritation may be delayed for several hours.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Remove and wash contaminated clothing before re-use. Thoroughly clean shoes before reuse.
Inhalation	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Treat symptomatically. If swallowed, seek medical advice immediately and show this container or label. Loosen tight clothing such as collar, tie, belt and waistband.
Protection of First-aiders	Use personal protective equipment.

Most Important Symptoms and Effects, Both Acute and Delayed

Caution - substance not yet tested completely. May cause sensitization by skin contact. HARMFUL IF SWALLOWED. Symptoms may be delayed. These may irritate eyes, nose and throat. Specified Class 1 Substances PRTR.

Indication of Any Immediate Medical Attention and Special Treatment Needed

General advice for dithiocarbamates. Biomonitoring possible at chronical exposure: determination of TTCA in the urine at the end of the workday/week. Bloodtesting for delayed effects: liver tests, kidney function, thyroid function.

5. Fire-fighting measures

Suitable extinguishing media

Water spray. Dry chemical. Carbon dioxide (CO₂). Alcohol-resistant foam.

Unsuitable extinguishing media

No information available.

Specific hazards arising from the chemical

Danger of dust explosions. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products Carbon oxides. Carbon monoxide. Nitrogen oxides (NO_x). sulphur oxides. sulphides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear respiratory protection. Wear suitable protective clothing, gloves and eye/face protection. Avoid dust formation. Remove all sources of ignition.

Environmental Precautions

Remove immediately adhering matter. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Use explosion-proof equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Large spills should be collected mechanically (remove by pumping) for disposal. Keep in suitable, closed containers for disposal. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Do not flush with water. Avoid dust formation. Use a suitable vacuum cleaner. Use explosion-proof equipment. Vacuum or sweep material and place in a disposal container.

7. Handling and Storage

Precautions for Safe Handling

Take measures to prevent the build up of electrostatic charge. Use only in area provided with appropriate exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapours/dust. Use only in an area equipped with a safety shower. Ensure that eyewash stations and safety showers are close to the workstation location. Do not eat, drink or smoke when using this product. Wash hands after handling. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

In accordance with local and national regulations. Keep in a dry, cool place. Do not store near acids. Do not store together with oxidizing and self-igniting products. Use spark-proof tools and explosion-proof equipment. Keep away from heat and sources of ignition. Keep away from direct sunlight.

incompatible materials

Strong acids. Oxidizing agents. Strong bases.

8. Exposure Controls/Personal Protection

Control Parameters

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Disulfiram 97-77-8	TWA: 2 mg/m ³	-	-

Appropriate Engineering Controls

Local exhaust. Avoid dust formation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin and Body Protection	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	If irritation is experienced, NIOSH approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
General hygiene considerations	When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state	solid	Odor	Amine-like
appearance	No information available		
color	off-white		

<u>Property</u>	<u>VALUES</u>	<u>Remarks • Method</u>
pH	No Information Available	
Melting point/freezing point	> 64 °C	
Boiling Point/Range	No information available	
flash point	No information available	
evaporation rate	No information available	
flammability (solid, gas)	not auto-flammable	
Flammability limit in air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapour Pressure Value	Negligible @ 20 °C	
vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in Other Solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	240-280 °C	
decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	Dust can form an explosive mixture with air	
Oxidizing properties	Not Applicable	

OTHER INFORMATION

molecular weight	No information available
VOC Content	No information available
density	1310 kg/m ³ @ 20 °C

10. Stability and Reactivity

Reactivity

See Incompatible Materials

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Possibility of hazardous reactions. See Incompatible Materials.

Hazardous polymerization

Hazardous polymerization does not occur.

Conditions to avoid

Avoid dust formation. Keep away from heat and sources of ignition. Take precautionary measures against static discharges.

Incompatible materials

Strong acids. Oxidizing agents. Strong bases.

Hazardous decomposition products

Heating or fire can release toxic gas. Carbon oxides. Nitrogen oxides (NOx). Sulphur oxides. sulphides.

11. Toxicological Information

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	May cause slight irritation.
Skin contact	May cause slight irritation. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Harmful if swallowed Product dust may be irritating to eyes, skin and respiratory system

Product information

LD50/oral/rat =	1300 - 1400 mg/kg
LD50/dermal/rabbit =	> 2000 mg/kg
Eye irritation	slight irritation
Skin irritation	Slightly irritating to rabbits
sensitization	sensitization
Mutagenic effects	Not mutagenic in AMES Test
Specific target organ systemic toxicity (single exposure)	No information available
Specific target organ systemic toxicity (repeated exposure)	No information available

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Disulfiram 97-77-8	-	Group 3	-	-

Target organ effects Central Nervous System (CNS), EYES, liver, Peripheral Nervous System (PNS), Respiratory System, skin.

12. Ecological Information

Ecotoxicity**Product information**

Poecilia reticulata (guppy) LC50 : 0.19-0.32 mg/l - 96 hour
EC50/48h/Daphnia magna = 0.12 mg/l
EC50/96h/green algae = 1.8 mg/l
Toxicity to bacteria 15min IC50 : 1.21 mg/l

Chemical name	Freshwater Algae	Freshwater Fish	Water Flea
Disulfiram 97-77-8	-	0.187: 96 h Poecilia reticulata mg/L LC50 semi-static	-

Persistence/Degradability

No information available.

Bioaccumulative potential**Mobility in Soil**

No information available

Other Adverse Effects

None known based on information supplied

13. Disposal Considerations

Waste Treatment Methods**Waste Disposal Method**

Dispose of in accordance with local regulations. Waste codes should be assigned by the user based on the application for which the product was used. Classified as hazardous waste according to national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Disulfiram 97-77-8	(hazardous constituent - no waste number)	-	-	-

14. Transport Information

DOT

UN-No UN3077
Proper shipping name UN3077, Environmentally Hazardous Substance, solid, n.o.s. (Tetraethylthiuram Disulfide), 9 PG III
Hazard class 9
Packing group PG III

IATA

UN-No UN3077
Proper shipping name Environmentally hazardous substance, solid, n.o.s (Tetraethylthiuram disulfide)
Hazard class 9
Packing group III
Marine pollutant yes

IMDG/IMO

UN-No UN3077
Proper shipping name Environmentally hazardous substance, solid, n.o.s (Tetraethylthiuram disulfide)
Hazard class 9

Packing group	III
Marine pollutant	yes

15. Regulatory Information

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA TITLE III SECTION 313 INFORMATION:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazardous

Categorization

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations

California Proposition 65

No Data Available

State Right-to-Know

U.S. EPA Label information

EPA Pesticide registration number Not Applicable

WHMIS Hazard Class D2B Toxic materials

CANADA This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other Information**NFPA**
HMISHEALTH 2
HEALTH 2FIRE 1
flammability 1Instability 0
Physical hazards 0

Physical hazard -

Revision date 05-26-2015

Revision Summary

Not Available

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet