

## MATERIAL SAFETY DATA SHEET

: According to EC-directive 2001/58/EC

Rubber Accelerator TMTD(TT)

HS Code: 29309090.90

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Product label name</b>	Tetramethyl Thiuram Disulfide
<b>Supplier</b>	Qingdao YLSCH Industry&Trade Co.,Ltd Room 501,2-3 Unit. No.8,Zhengzhou Road, Qingdao,China. TEL: +86 18661665800
<b>Emergency telephone</b>	TEL: +86 18661665800
<b>Intended use</b>	Rubber Vulcanization Accelerator

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Chemical name</b>	二硫化四甲基秋兰姆 Tetramethyl Thiuram Disulfide
<b>CAS NO.</b>	137-26-8
<b>Chemical description</b>	Light gray powder
<b>TSCA NO.</b>	none
<b>EINECS NO.</b>	none
<b>Other information</b>	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> S <sub>4</sub>

### 3. HAZARDS IDENTIFICATION

Repeated contact may cause skin sensitization. Very toxic to aquatic organisms, May cause long-term adverse effects in the aquatic environment.

### 4. FIRST AID MEASURES

<b>Symptoms and effects</b>	May cause alcohol intolerance. Harmful by inhalation and if swallowed. Repeated contact may cause skin sensitization.
<b>First aid</b>	
<b>General</b>	Do not drink alcohol after exposure.

<b>Inhalation</b>	Move to fresh air. If symptoms persist, seek medical advice.
<b>Skin</b>	Remove all contaminated clothing immediately. Wash off with plenty of soap and water. Seek medical advice if irritation develops. Launder clothes before reuse.
<b>Eye</b>	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to Ensure thorough rinsing. Seek medical advice if irritation develops.
<b>Ingestion</b>	Rinse mouth, give water to drink.
<b>Advice to physician</b>	No specific recommendations.

## 5. FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	Waterspray, water mist, foam, dry chemical powder, CO <sub>2</sub>
<b>Unsuitable extinguishing media</b>	Waterjet.
<b>Special exposure hazards</b>	Emits toxic fumes under fire conditions.
<b>Hazardous decomposition/ Combustion products</b>	Carbon monoxide (CO), Sulfur oxides (SO <sub>x</sub> ), nitrous gases (NO <sub>x</sub> ).
<b>Protective equipment</b>	Wear self contained breathing apparatus.
<b>Other information</b>	Do not allow run-off from fire fighting to enter drains or water courses.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	For personal protection see Section 8. Avoid dust generation.
<b>Environmental precautions</b>	Do not discharge into sewer. Collect as much as possible in a clean container for
<b>Methods for cleaning up</b>	(preferable) reuse or disposal.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin. Avoid dust generation.  Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. Dust explosion class (VDI 2263): St 2.
<b>Fire and explosion prevention</b>	Kst: 239 bar.m/s Maximum rate of pressure rise: 1060 bar/s. Maximum corrected explosion pressure: 7.4 bar.
<b>Storage requirements</b>	Store in a dry and cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

Avoid dust generation.Ensure good ventilation and local exhaustion of the working area.

**Exposure limits****Name:** Tetramethyl Thiuram DisulfideOES-TWA 5.0 mg/m<sup>3</sup> OES-STEL 10.0 mg/m<sup>3</sup>**Personal protection****Respiratory**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand**

Wear suitable gloves.

**Eye**

Wear safety goggles.

**Skin and body**

Wear suitable protective clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Light gray	<b>Colour</b>	Light gray
<b>Odour</b>	Slightly amine like	<b>Boiling point</b>	----
<b>Melting point</b> ≥	140.0°C	<b>Flash point</b>	Approx. 150 ° C
<b>Flammability</b>	----	<b>Explosion limits</b>	10g/m <sup>3</sup>
<b>Explosive properties</b>	Dust explosion hazard	<b>Auto ignition temperature</b>	> 400 ° C
<b>Oxidizing properties</b>	----	<b>Vapour pressure</b>	----
<b>Density</b>	1.29g/cm <sup>3</sup> (20°C)	<b>Bulk density</b>	----
<b>Solubility in water</b>	Insoluble in water	<b>Solubility in other solvents</b>	acetone,aether, chloroform
<b>pH value</b>	----	<b>Partition coefficient</b>	----
<b>Residues (150um)% Max</b>	0.1(Max)	<b>Relative vapour density</b>	----
<b>Viscosity</b>	----	<b>Assay content %</b> ≥	95
<b>Strength of grain(N)</b>	----		

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	No specific recommendations.
<b>Materials to avoid</b>	Avoid exposure to: oxidizing agents, strong acid.
<b>Hazardous decomposition products</b>	No hazardous decomposition products known.

**11. TOXICOLOGICAL INFORMATION**

<b>Name</b>	Tetramethyl Thiuram Disulfide
<b>Acute toxicity</b>	
<b>Oral LG50</b>	rat:1080 mg/kg.

<b>Dermal LD50</b>	rabbit:>7940 mg/kg.
<b>Inhalation LC50</b>	rat:4.42 mg/kg.
<b>Irritation</b>	
<b>Skin</b>	Practically non-irritating.
<b>Eye</b>	Practically non-irritating.

## 12. ECOLOGICAL INFORMATION

<b>Name</b>	Tetramethyl Thiuram Disulfide
<b>Ecotoxicity</b>	
	96h-LC50 (Lepomis macrochirus): 0.13 mg/l.
<b>Fish</b>	96h-LC50 (Oncorhynchus mykiss): 0.13 mg/l. 96h-LC50 (Pimephales promelas): 0.27 mg/l.
<b>Daphnia</b>	48h-EC50 (Daphnia magna): 0.24 mg/l.
<b>Algae</b>	96h-IC50 (Selenastrum capricornutum): 1.0 mg/l.
<b>bacteria</b>	15min-EC50: 1.9 mg/l (P.phosphoreum) (Lit.)
<b>Degradation Biotic</b>	Not readily biodegradable.

## 13. DISPOSAL CONSIDERATIONS

<b>Product</b>	Avoid discharge into the environment Small quantities: According to local regulations. Large quantities: Consult YLSCH Chemical for special advice.
<b>Contaminated packaging</b>	According to local regulations. Waste code number: Please refer to your specific industry
<b>Other information</b>	in the European Waste Catalogue.

## 14. TRANSPORT INFORMATION

<b>Land transport (ADR/ RID)</b>			
<b>ADR class</b>	9	<b>RID class</b>	9
<b>ADR/RID packing group</b>	----	<b>Hazard Identification No.</b>	90
<b>Substance Identification No.</b>	3077	<b>UN number</b>	3077
	Environmentally hazard us substance, solid, n.o.s.		
<b>Proper Shipping Name</b>	(Tetramethyl Thiuram Disulfide )		
<b>Sea transport (IMDG-code/ IMO)</b>			

<b>Correct technical name</b>	----	<b>IMDG Class</b>	9
<b>UN Number</b>	3077	<b>Packaging group</b>	
<b>EMS Number</b>	----		
<b>Air transport (ICAO-TI/ IATA-DGR)</b>			
<b>ICAO-TI/IATA-DGR Class</b>	9	<b>UN number</b>	3077
<b>Packing group</b>	Environmentally hazardous substance, solid, n.o.s.		
<b>Correct technical name</b>	(Tetramethyl Thiuram Disulfide )		

## 15. REGULATORY INFORMATION

<b>Chemical description</b>	Tetramethyl Thiuram Disulfide
<b>Labelling according to EC directives</b>	
<b>EC-number</b>	See section 2 Annex-1 to directive 67/548/EEC
<b>Classification based on</b>	R 43 May cause sensitization by skin contact May cause long-term adverse effects in the aquatic environment
<b>R(isk) phrase(s)</b>	S 24 Avoid contact with skin S 37 Wear suitable gloves S 60 This material and its container must be disposed of as hazardous waste
<b>S(afety) phrase(s)</b>	S 61 Avoid release to the environment. Refer to special instruction /Safety data sheets
<b>Other information</b>	To be displayed on the label: "EC label".
<b>Wassergefährdungsklasse (WGK)</b>	3 (VwVwS Anhang 3, Nr. 6612)

## 16. OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.