



## Safety Data Sheet (SDS)

Revision 1 Review Date: 2/18/16

### 1. Chemical Product and Company Identification

Product Name:	TMTM
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Tetramethylthiuram monosulphide
CAS No.	97-74-5
REACH:	Not Available
Product Use:	Rubber Accelerator
OSHA Status	Hazardous

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

### 2. Hazard(s) Identification

Classification:

**The following Hazard Statements are applicable only to the EU regulation and not the US GHS regulation**

Environment: Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects

Health: Acute Tox 4; H302 Harmful if swallowed  
Skin Sens. 1; H317 may cause an allergic skin reaction

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

R22 Harmful if swallowed  
R43 May cause sensitization by skin  
R51/53 Toxic to aquatic organisms: May cause long-term adverse effects in the aquatic environment.

**This pictogram only applicable for EU regulations. Not for use in the US(OSHA GHS)**

Hazard Pictograms:



Signal word:

Warning

<u>Hazard Statement:</u>	Harmful if swallowed. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
<u>Precautionary Statement:</u>	Contaminated work clothing should not be allowed out of the Work place. Avoid releases to the environment Wear protective gloves/protective clothing/ eye protection/ Face protection. If SWALLOWED Call a POISON CENTER or doctor/physician if you Feel unwell. If material is on Skin wash with plenty of soap and water. Rinse mouth. If skin irritation or rash occurs: Get medical Advise/attention. Wash contaminated clothing before reuse. Collect spillage Dispose of contents/container in according with local regulation
<u>Other Hazards:</u>	Fine dust clouds may form explosive mixtures with air. Handling and or processing of this material may generate a dust Which can cause mechanical irritation of the eyes, skin, nose and throat.

### 3. Composition / Information on Ingredients

Chemical Name:

Tetramethylthiuram monosulphide      CAS No. 97-74-5      EC No. 202-605-7      Concentration 97%

### 4. First Aid Measures

<u>Inhalation:</u>	Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.
<u>Eyes:</u>	Flush eyes with copious quantities of water while holding eyelids open. Consult ophthalmologist immediately.
<u>Skin:</u>	Remove contaminated clothing and launder it before reuse. Wash exposed area with soap and water immediately. If irritation persists, consult a physician.
<u>Ingestion:</u>	Do not induce vomiting. Seek medical attention.
<u>Most important symptoms and effects, Both acute and delayed:</u>	Harmful if swallowed. May cause an allergic skin reaction.

Indication of any immediate medical attention

And special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

**5. Fire-Fighting Measures**

Suitable Extinguishing Media:

Water Spray, Dry Powder, Foam .

Unsuitable extinguishing Media:

None

Special hazards arising from the Substance or mixture:

In case of fire, the following can be released; Nitrogen oxides , carbon dioxide, sulfur oxides.

Special fire fighting methods and special protective Actions for fire-fighters:

Wear self- contained breathing apparatus for fire-fighting if necessary.

**6. Accidental Release Measures**

Steps to be taken in case material is Spilled:

For non-emergency personnel: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For Emergency responders: Wear an appropriate NIOSH/MSHA Approved respirator if dust is generated.

Environmental Disposal Information:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Waste Disposal:

Shovel or sweep up. Recover the product and place in a dry labelled container .Destroy the product by incineration in accordance with local, state, and federal regulations .

**7. Handling and Storage:**

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Do not eat, drink or smoke in work areas.

Wash hands after use Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any Incompatibilities:

Keep in well-ventilation place. Keep in a dry place. Store protected from moisture.

Incompatible products: Oxidants, strong acids.

Packaging materials: recommended paper bags, big bags.

## 8. Exposure Controls / Personal Protection

<u>Exposure Controls:</u>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
<u>Respiratory Protection:</u>	Wear effective dust mask.
<u>Protective Gloves:</u>	Material Nitrile rubber. Minimum layer thickness: 0.11 mm. Break through time >480 min.
<u>Eye Protection:</u>	Wear safety glasses or chemical goggles to prevent eye contact.
<u>Skin and Body Protection:</u>	Protective clothing. Protective boots, if the situation requires. Wear suitable protective clothing to prevent heat.
<u>Environmental exposure controls:</u>	Avoid discharge into the environment. According to local regulation, federal and official regulations.

## 9. Physical and Chemical Properties

<u>Appearance:</u>	Powder solid
<u>Color:</u>	Yellow
<u>Odor:</u>	Slight
<u>Odor threshold:</u>	Not Available
<u>PH:</u>	Not Available
<u>Melting point/range (°C):</u>	ca. 108.06 °C
<u>Boiling point/range (°C) :</u>	ca. 243 °C(Decomp.)
<u>Flash point (°C):</u>	Closed cup: >150°C (Pensky-Martens)
<u>Evaporation rate:</u>	Not Available
<u>Flammability limit –lower (%):</u>	Not Available
<u>Flammability (solid, gas):</u>	Not Available
<u>Ignition temperature (°C):</u>	Not Available
<u>Upper/lower flammability/explosive limits:</u>	Not Available
<u>Vapor Pressure ( 20 °C):</u>	Not Available
<u>Vapor Density:</u>	Not Available
<u>Relative Density:</u>	1.4
<u>Bulk density (kg/m<sup>3</sup>):</u>	Not Available
<u>Water solubility (g/l):</u>	308 mg/L(20°C)(ph:7.58-7.66)
<u>n-Octanol/Water (log Po/w):</u>	0.75
<u>Auto-ignition temperature:</u>	>200°C
<u>Decomposition temperature:</u>	>243°C
<u>Viscosity dynamic (mPa.s):</u>	Not Available
<u>Explosive properties:</u>	Not Explosive
<u>Oxidising properties:</u>	Not oxidizing
<u>Molecular formula:</u>	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> S <sub>3</sub>
<u>Molecular Weight:</u>	208.37

<u>Other information:</u>	Fat solubility(solvent-oil to be specified) etc. : Not Available Surface tension: 70.2 mN/m(21.3°C)(900 mg/L) Dissociation constant in water (pKa): Not Available. Oxidation reduction potential: Not Available. Specific gravity: Not Available.
---------------------------	---

<b><u>10. Stability and Reactivity</u></b>	
<u>Reactivity/chemical Stability:</u>	The substance is stable under normal storage and handling conditions. Stable at room temperature in closed containers under normal storage and handling conditions.
<u>Incompatibility (Materials to Avoid):</u>	Oxidants, strong acids.
<u>Conditions to Avoid:</u>	Incompatible materials. Store protected from moisture & heat.
<u>Hazardous decomposition products:</u>	Nitrogen oxides, carbon dioxide, sulfur oxides.

<b><u>11. Toxicological Information</u></b>	
<u>Non-human toxicological data:</u>	Not Available
<u>Information on toxicological effects:</u>	Acute Toxicity: LD50(oral, Rat): 690 mg/kg bw LD50(Dermal, Rabbit):>2000 mg/kg bw LC50 (Inhalation, Rat): Not available.
<u>Skin corrosion/Irritation:</u>	Not Classified
<u>Serious eye damage/irritation:</u>	Not Classified
<u>Respiratory or skin sensitization:</u>	May cause an allergic skin reaction.
<u>Germ cell mutagenicity:</u>	Not Classified
<u>Carcinogenicity:</u>	Not Classified
<u>Reproductive toxicity:</u>	Not Classified
<u>STOT-single exposure:</u>	Not Classified
<u>STOT-repeated exposure:</u>	Not Classified

<b><u>12. Ecological Information</u></b>				
<u>Aquatic Toxicity:</u>		Toxic for aquatic organisms		
Measurement Type	Concentration	Species	Exposure Time	Test Type
LC 50	4.2 to 6.8 mg/l	Guppy (Poecilia reticulata)	96 hours	Renewal
LC 50	0.033 to 0.043 mg/l	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	60 days	Renewal
LC 50	0.01 to 0.1 mg/l	Zebra danio (Danio rerio)	7 days	Renewal
<u>Persistence and degradability</u>		No further relevant information available.		
<u>Bio accumulative Potential:</u>		No further relevant information available.		
<u>Results of PBT and vPvB assessment:</u>		Not applicable.		

### 13. Disposal Considerations

Waste treatment methods:

The material should be disposed of by incineration in a chemical Incinerator in compliance with national and regional requirements.

Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

### 14. Transport Information

D.O.T. Shipping Name

N/A

ICAO (International Civil Aviation Organization)

UN Number: 3077  
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,(TETRAMETHYLTHIURAM MONOSULFIDE) Class: 9 Packaging group: III Environmental hazards: Yes

IMDG/IATA (International Maritime Dangerous Goods)

UN Number: 3077  
UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,(TETRAMETHYLTHIURAM MONOSULFIDE) Class: 9 Packaging group: III Environmental hazards: Yes

### 15. Regulatory Information

Safety, Health and Environmental regulations/ Legislation specific for the substance or mixture:

United States:

SARA Section 355 Substance is not listed  
SARA Section 313 Substance is not listed  
TSCA Substance is listed  
Substance is not listed

Proposition 65

Carcinogenic Categories

EPA

Substance is not listed

IARC

Substance is not listed

TLV

Substance is not listed

NIOSH-CA

Substance is not listed

OSHA-Ca

Substance is not listed

### 16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate any law, regulation or patent. It is the user's responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.