

1. Identification of Substance and Company	
Product Name	: SIN RUBTECH® POLYMER BOUND PREDISPERSED TMTM – 80G
Trade Name	: TMTM – 80G
Manufacturer	: UA Rubber Speciality Chemical Sdn. Bhd.
Supplier	: Sin Rubtech Consultancy Sdn. Bhd.
Address	: 10-12 Jalan Industri Cherok To’Kun 2, Taman Industri Cherok To’Kun, 14000 Bukit Mertajam, Seberang Prai Utara, Penang, Malaysia.
Telephone	: 604 – 5511804
Fax	: 604 – 5514804
Website / E-Mail	: www.sinrubtech.com / marketing@sinrubtech.com

2. Composition / Information on ingredients			
A proprietary predispersed 80% tetramethylthiuram monosulphide in a 20% elastomeric / processing aids binder.			
CAS No	TMTM : 97 - 74 - 5	Hazard Symbol	: Xn
	Binder : Trade Secret	R phrases	: 22, 36, 40 & 43

3. Hazards Identification	
Hazard Designation	: Harmful
Health Hazards	: Harmful
Inhalation	: Not applicable at ambient temperatures.
Skin Contact	: Avoid direct contact. Can cause irritation.
Eye Contact	: Can cause irritation
Ingestion	: Unlikely to be harmful unless excessively taken.

4. First-aid Measures	
Inhalation	: Not Applicable
Skin Contact	: Wash with plenty of water and soap.
Eye Contact	: Wash with plenty of water and obtain medical attention if any sensation persists.
Ingestion	: Remove material from mouth. Wash with water. If large amounts swallowed or symptoms develop seek medical attention.

5. Fire-fighting Measures

Extinguishing Media : Water spray, foam, carbon dioxide, dry chemicals.
Special Protective Equipment : Protective clothing and self-contained breathing equipment should be available for firemen.

6. Accidental Release Measures

Methods for Cleaning / Collecting : Sweep up and transfer product to a suitably labelled container and dispose at an approval site.

7. Handling and Storage

Handling : No special precautions necessary but normal industrial good housekeeping practices should be followed as for any rubber additive.

8. Exposure Controls / Personal Protection

General Precautions : Good industrial hygiene should be followed.
Ventilation : Adequate ventilation should be maintained when handling heated product.
Occupational Exposure Limits : See item 15.
Personal Protective Equipment : Normal precautions should be observed as for handling all chemicals.

9. Physical and Chemical Properties

Form/Colour/Odour : Granules / Yellow / Faint
pH : Not Applicable.
Boiling Point : Not Applicable.
Solidif./Melting Point : Not Applicable.
Flash Point : Not Applicable.
Auto-ignition Temp. : > 200oC
Explosive/oxidizing properties : Not Applicable.
Vapor pressure (mbar/208C) : Not Applicable.
Density (g/cm³) : 1.11 Approx.
Solubility in Organic Solvents : Partially soluble in organic solvents.
Solubility in Water : Insoluble.

10. Stability and Reactivity	
Stability	: Stable under normal conditions.
Conditions to Avoid	: After prolonged heating, decomposition starts at about 150oC
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Tetramethyl thiourea, carbon disulphide.
Hazardous Reactions	: Contact with nitrosating agents may lead to nitrosoamine formulation.

11. Toxicological Information	
According to experience, no harmful effects are to be expected under proper handling conditions. However chemicals are not readily available as they are bound within the Polymer Matrix.	
Special properties/effects : May cause skin sensitization with man.	

12. Ecological Information	
Based on Components: Water pollution class (WGK) : 2 - impairment of water quality (own classification). WGK - Classification in accordance with the German Water Resources Act Prevent entry into drains, clear water drainage, waters or soil. However chemicals are not readily available as they are bound within the Polymer Matrix.	

13. Disposal Consideration	
Waste Disposal Method	: Incinerate according to local regulations
Contaminated Container Disposal	: Observe local regulations. Treat container and waste material as hazardous.

14. Transport Information	
Not classified in RID/ADR - ADNR - IMDG - ICAO/IATA - DGR.	

15. Regulatory Information	
Labelling in accordance with Annex T of directive 57/548/EEC and its amendments and adaptations:	
<u>Symbol</u>	<u>Hazard Description</u>
Xn	: Harmful
Contains	: tetramethylthiuram monosulphide (TMTM)
<u>Risk phrase(s)</u>	<u>Definition</u>
R 22	: Harmful if swallowed.
R 36	: Irritating to eyes.
R 40	: Possible risks of irreversible effects.
R 43	: May cause sensitization by skin contact.
<u>Safety phrase(s)</u>	<u>Definition</u>
S 36/37	: Wear suitable protective clothing and gloves.
Under vulcanization conditions TMTM may form traces of N-nitrosodimethyl-amine. Must not be used together with nitrosating agents.	
Note German Technical Regulation on dangerous Substances No. S52 (nitrosamine).	

16. Other Information (training needs, possible restrictions, data sources, etc)	
Data Sources	: Sin Rubtech Consultancy Sdn. Bhd.
Department issuing MSDS	: Technical Department.
Contact	: Sin Yoong Leong, Technical Manager

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