

1. Identification of Substance and Company	
Product Name	: SIN RUBTECH® POLYMER BOUND PREDISPERSED DTDM – 80G
Trade Name	: DTDM – 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
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Website / E-Mail	: www.sinrubtech.com / marketing@sinrubtech.com

2. Composition / Information on ingredients	
A proprietary predispersed 80% of 4,4'-dithiodimorpholine in a 20% elastomeric / processing aids binder.	
CAS No DTDM	: 103 – 34 – 4
Hazard Symbol	: Xi
Binder	: Trade Secret
R phrases	: 36/38, 43, 51/53

3. Hazards Identification	
Hazard Designation	: Irritant
Health Hazards	: -
Inhalation	: Not applicable at ambient temperatures.
Skin Contact	: Unlikely to be irritant.
Eye Contact	: Unlikely to be irritant.
Ingestion	: Unlikely to be harmful.

4. First-aid Measures	
Inhalation	: After inhalation of vapours during processing remove to fresh air.
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	: 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 / White / Faint
pH	: Not Applicable.
Boiling Point	: Not Applicable.
Solidif./Melting Point	: Not Applicable.
Flash Point	: Not Applicable.
Auto-ignition Temp.	: > 200°C
Explosive/oxidizing properties	: Not to be expected.
Vapor pressure (mbar/20°C)	: Not Applicable.
Density (g/cm ³)	: 1.23 Approx.
Solubility in Organic Solvents	: Aromatic.
Solubility in Water	: Insoluble.

10. Stability and Reactivity	
Stability	: Stable under normal conditions.
Conditions to Avoid	: -
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Oxides of carbon, nitrogen and sulphur.
Hazardous Polymerisation	: Will not occur.

11.

Toxicological Information

Name 4,4'-Dithiodimorpholine

Acute toxicity

Oral LD50 rat: 5600 mg/kg.

Dermal LD50 rabbit: >5010 mg/kg.

Irritation

Skin Slightly irritating to skin but not sufficient for classification.

Eye Slightly irritating to eyes but not sufficient for classification.

Genotoxicity Oral developmental toxicity test (rat): No birth defects were noted in the offspring.

The product generally produced no genetic changes in standard tests using animals, bacterial and yeast cells.

Other toxicological information Human experience:

Irritating to eyes and skin.

May cause sensitization by skin contact.

12.

Ecological Information

For DTDM Powder Form

Ecotoxicity

fish 96h-LC50 (Lepomis macrochirus): 1.6 mg/l

96h-LC50 (Oncorhynchus mykiss): 1.8 mg/l.

96h-LC50 (Pimephales promelas): 3.5 mg/l.

daphnia 48h-EC50 (Daphnia magna): 4.5 mg/l.

algae 96 h-EC50 (Selenastrum capricornutum): 29 mg/l.

Fate

Degradation Abiotic Hydrolysis: t1/2 = 42 hours

Degradation Biotic 34.6 % (35 days, Shake flask CO2 evolution assay)

Bioaccumulation Log Pow = 2.49

Bio Concentration Factor (BCF) = 29 (calculated)

13.

Disposal Consideration

Waste Disposal Method : Incinerate according to local regulations

Contaminated Container Disposal : Observe local regulations.

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>
Xi	: Irritant
N	: Dangerous for the Environment
Contains	: 4,4' dithiodimorpholine (DTDM)
<u>Risk phrase(s)</u>	<u>Definition</u>
R 36/38	: Irritating to eyes and skin
R 43	: May cause sensitization by skin contact.
R 51/53	: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
<u>Safety phrase(s)</u>	<u>Definition</u>
S 24	: Avoid contact with skin
S 26	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 36/37	: Wear suitable protective clothing and gloves.
S 61	: Avoid release to the environment

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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