

<b>1. Identification of Substance and Company</b>	
Product Name	: SIN RUBTECH® POLYMER BOUND PREDISPERSED ZDMC – 80G
Trade Name	: ZDMC – 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.
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<b>2. Composition / Information on ingredients</b>	
A proprietary predispersed 80% of Zinc dimethyl dithiocarbamate in a 20% elastomeric / processing aids binder.	
CAS No	ZDMC : 137-30-4
	Hazard Symbol : Xn, Xi, T+, N
	Binder : Trade Secret
	R phrases : 22, 26, 36, 40,41, 43, 48/22, 50/53

  

<b>3. Hazards Identification</b>	
Hazard Designation	: Hazardous.
Health Hazards	: Hazardous.
Inhalation	: Not applicable at ambient temperatures.
Skin Contact	: Avoid direct contact. Can cause irritation.
Eye Contact	: Can cause irritation
Ingestion	: Harmful if ingested.

  

<b>4. First-aid Measures</b>	
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.

  

<b>5. Fire-fighting Measures</b>	
Extinguishing Media	: Water spray, foam, carbon dioxide, dry chemicals.
Special Protective Equipment	: Protective clothing and self-contained breathing equipment should be available for firemen.

<b>6. Accidental Release Measures</b>	
Methods for Cleaning / Collecting	: Sweep up and transfer product to a suitably labelled container and dispose at an approval site.

<b>7. Handling and Storage</b>	
Handling	: No special precautions necessary but normal industrial good housekeeping practices should be followed as for any rubber additive.

<b>8. Exposure Controls / Personal Protection</b>	
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.

<b>9. Physical and Chemical Properties</b>	
Form/Colour/Odour	: Granules / Whitish / Faint
pH	: Not Applicable.
Boiling Point	: Not Applicable.
Solidif./Melting Point	: Not Applicable.
Flash Point	: Not Applicable.
Auto-ignition Temp.	: > 2008C
Explosive/oxidizing properties	: Not to be expected.
Vapor pressure (mbar/208C)	: Not Applicable.
Density (g/cm <sup>3</sup> )	: 1.42 Approx.
Solubility in Organic Solvents	: Aromatic.
Solubility in Water	: Insoluble.

<b>10. Stability and Reactivity</b>	
Stability	: Stable under normal conditions.
Conditions to Avoid	: After prolonged heating decomposition starts at about 1508C
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Oxides of carbon, nitrogen and sulphur.
Hazardous Reactions	: Contact with nitrosating agents may lead to nitrosoamine formation.

11.

**Toxicological Information**

**Name** Zinc dimethyldithiocarbamate

**Acute toxicity**

**Oral LD50** rat: >1270 mg/kg.

**Dermal LD50** rabbit: >2000 mg/kg.

**Inhalation LC50** rat; 4 hours: 0.026-0.081 mg/l.

**Irritation**

**Skin** Non-irritating

**Eye** Severely irritating

**Sensitization** Sensitizing (Lit.)

**Genotoxicity** EEC category 3 mutagen: substance which causes concern for man owing to its possible mutagenic effects.

12.

**Ecological Information**

**Ecotoxicity**

**fish** 96h-LC50 (*Poecilia reticulata*): 0.75 mg/l (Lit.).

No Observed Effect Concentration (NOEC) (*Danio rerio*):  
<0.032 mg/l.

**daphnia** 48h-EC50 (*Daphnia magna*): 0.14 mg/l (Lit.).

**algae** 96 h-EC50 (*Chlorella pyrenoidosa*): 1.2 mg/l (Lit.).

13.

**Disposal Consideration**

Waste Disposal Method : Incinerate according to local regulations

Contaminated Container Disposal : Observe local regulations e.g. German Regulation on Waste 57202

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	: Zinc diethyl dithiocarbamate (ZDMC)
<u>Risk phrase(s)</u>	<u>Definition</u>
R 22	: Harmful if swallowed.
R 26	: Irritating to eyes.
R 36	: Possible risks of irreversible effects.
R 40	: May cause sensitization by skin contact.
R 41	: Risk of serious damage to eyes
R 43	: May cause sensitization by skin contact
R 48/22	: Harmful: danger of serious damage to health by prolonged exposure if Swallowed
R 50/53	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
<u>Safety phrase(s)</u>	<u>Definition</u>
S 26	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 28	: After contact with skin, wash immediately with plenty of soap and water
S 36/37/ 39	: Wear suitable protective clothing, gloves and eye/face protection
S 45	: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S 60	: This material and its container must be disposed of as hazardous waste
S 61	: Avoid release to the environment.

Under vulcanization conditions ZDMC may form traces of N-nitrosodiethyl-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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