

1. Identification of Substance and Company	
Product Name	: SIN RUBTECH® POLYMER BOUND PREDISPERSED ZDEC – 80G
Trade Name	: ZDEC – 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 Zinc diethyl dithiocarbamate in a 20% elastomeric / processing aids binder.	
CAS No ZDEC	: 14324 – 55 – 1
Hazard Symbol	: N, Xi, Xn
Binder	: Trade Secret
R phrases	: 22, 36/38, 43, 50/53

3. Hazards Identification	
Hazard Designation	: Harmful. If ingested
Health Hazards	:
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 at ambient temperatures.
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 / Grey Yellowish / 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 to be expected.
Vapor pressure (mbar/208C)	: Not Applicable.
Density (g/cm ³)	: 1.22 Approx.
Solubility in Organic Solvents	: Aromatic.
Solubility in Water	: Insoluble.

10. Stability and Reactivity	
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 formulation.

11. Toxicological Information	
Name Zinc diethyldithiocarbamate	
Acute toxicity	
Oral LD50 rat: 2590 mg/kg.	
Dermal LD50 rat: >2000 mg/kg.	
Irritation	
Skin Practically non-irritating.	
EU: Irritating to skin.	
Eye irritating.	
Respiratory EU: Irritating to respiratory system.	
Sensitization Not sensitizing (Human experience).	
Genotoxicity Not mutagenic (Ames test, in vitro chromosome aberration)	

12. Ecological Information	
Ecotoxicity	
fish 96h-LC50 (Poecilia reticulata): 0.49 mg/l (Lit.)	
daphnia 48h-EC50 (Daphnia magna): 0.24 mg/l (Lit.).	
algae 96 h-EC50 (Chlorella pyrenoidosa): 1.1 mg/l.	

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
Xi	: Irritant
N	: Dangerous for the Environment
Contains	: Zinc diethyl dithiocarbamate (ZDEC)
<u>Risk phrase(s)</u>	<u>Definition</u>
R 22	: Harmful if swallowed.
R 36/38	: Irritating to eyes and skin.
R 43	: May cause sensitization by skin contact.
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 36/37	: Wear suitable protective clothing and gloves.
S 60	: This material and its container must be disposed of as hazardous waste
S 61	: Avoid release to the environment. Refer to special instructions/Safety data sheets

Under vulcanization conditions ZDEC 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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