

<b>Material Safety Data Sheet</b> May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910. Standard must be consulted for specific requirements.		<b>U. S. Department of Labor</b> Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved			
<b>IDENTITY (As used on Label and List)</b> ZDMC 75 EPR PELLETS		<b>MSDS #</b> 500690			
<b>Section I</b>					
<b>Manufacturer's Name</b> Polymeric Inc.		<b>Emergency Telephone Number</b> (330) 928-2210			
<b>Address (Number Street, City, State and ZIP Code)</b> 2828 Second Street		<b>Telephone Number for Information</b> (330) 928-2210			
Cuyahoga Falls, OH 44221		<b>Date Prepared</b> 02/08/05			
<b>Section II - Hazardous Ingredients/Identity Information</b>					
Hazardous Components (Specific Chemical Identity; Common Name(s))		OSHA PEL	ACGIH TLV	Other Limits Recommended	% Optional
Zinc Dimethyl Dithiocarbamate (ZDMC) CAS# 137-30-4 This component is reportable under SARA Title III, Section 313. As 99% Zinc Compound containing 21.4% total Zinc Metal.		None	None	N/A	80%
<b>Section III - Physical/Chemical Characteristics</b>					
<b>Boiling Point(F)</b> N/A		<b>Specific Gravity (H<sub>2</sub>O = 1)</b> Approximately 1.3790			
<b>Vapor Pressure (mm Hg.)</b> Non Volatile		<b>Melting Point</b> N/A			
<b>Vapor Density (AIR = 1)</b> Non Volatile		<b>Evaporation Rate (Butyl Acetate = 1)</b> N/A			
<b>Solubility in Water</b> Negligible					
<b>Appearance and Odor</b> White Rubber Pellets					
<b>Section IV - Fire and Explosion Hazard Data</b>					
<b>Flash Point (Method Used)</b> N/A		<b>Flammable Limits</b> N/D		<b>LEL</b> N/A	<b>UEL</b> N/A
<b>Extinguishing Media</b> Water Fog, Foam, Carbon Dioxide, Dry Chemical. CO2 may be ineffective on larger fire due to lack of cooling capacity which may result in reignition.					
<b>Special Fire Fighting Procedures</b> Evacuate unprotected personnel. Firefighters should use full protective gear with self-contained breathing apparatus. Toxic gases will form upon combustion. Fire is accompanied by dense, black smoke with acrid odor.					

(Reproduce Locally)

### Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid Process temperatures above 320 degrees F.
	Stable	X	

#### Incompatibility (*Materials to Avoid*)

Reacts with strong acids and strong oxidizers.  
May create a fire or explosion hazard when mixed with strong oxidizers.  
Avoid use with nitrosating agents.

#### Hazardous Decomposition or Byproducts

Oxides of carbon, nitrogen, zinc and sulfur. Combustion products from rubber, like those from other natural and synthetic materials, must be considered toxic.

Hazardous Polymerization	May Occur		Conditions to Avoid Overheating
	Will Not Occur	X	

### Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Y Hot fumes	Skin? Y Skin contact	Ingestion? N Not likely
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#### Health Hazards (*Acute and Chronic*)

Acute: May cause skin, respiratory, and eye irritation. Eye irritation may be severe even several hours after exposure. Skin absorption does take place and exposure from any route may result in alcohol intolerance ( See Other Precautions). May cause sensitization of the skin and allergic eczema ( dry, itchy, scaly skin) in sensitive individuals. Inhalation overexposure may also result in visual disturbances. Acute poisoning may cause liver and kidney damage. Acute inhalation exposure to particulates may be fatal due to the sensitization of the respiratory system, however, the product form all but eliminates the chance of this from occurring.

Polymer bound compounds preclude the possibility of airborne dust. They also eliminate the problems generally associated with powdered chemicals. Eye, nose and throat irritation from hot fumes.

Note: Talc is applied to the pellets as a partitioning agent. Repeated or prolonged inhalation of the talc may cause scarring of the lungs with shortness of breath and chronic cough.

Carcinogenicity:	NTP?Y	IARC Monographs? Y	OSHA Regulated?N
None of the components of this product that are present at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being a carcinogen. Although not listed by NTP, it does report that ZDMC causes carcinomas in laboratory animals. Possible Cancer Hazard: May react with nitrosating agents to form n-nitrosomorpholine, an animal carcinogen.			

#### Signs and Symptoms of Exposure:

At processing temperatures, fumes and vapors that cause irritation to the respiratory tract, eyes, and / or skin are emitted. Typically, these effects are reversible upon removal from exposure and no lasting effects are expected. Most importantly, the potential for irritation will depend upon the effectiveness of the exhaust ventilation in the process area.

HMIS #: Health 2*	Fire 1	Reactivity 0	Personal Protective Equipment B
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#### Medical Conditions Generally Aggravated by Exposure:

None reported.

#### Emergency and First Aid Procedures:

**Eyes:** Flush with water while holding eyelids open for 15 minutes. If irritation persists, consult a physician.  
**Skin:** Wash with soap and water; remove contaminated clothing. Get medical attention if irritation persists.  
**Inhalation:** Remove victim to fresh air and consult a physician. Give oxygen or artificial respiration if breathing is difficult.  
**Ingestion:** Not expected to be a route of exposure due to the form of the product.

### Section VII - Precautions for Safe Handling and Use

#### Steps to be Taken in Case Material is Released or Spilled:

Dispose of contaminated material. Re-use uncontaminated material.

#### Waste Disposal Method:

Not classified as a RCRA Hazardous material as defined in 40 CFR 261.3. State or local environmental regulations may differ from the federal regulations.

**Precautions to Be Taken in Handling and Storing:**

Store away from heat and direct sunlight. Wash thoroughly after handling.  
Recommended shelf life of one year if stored in a cool, dry, environment.

**Other Precautions:**

Avoid breathing process fumes.  
Use under well-ventilated conditions.  
Consumption of alcohol after repeated exposure to ZDMC may produce an antabuse effect – violent nausea, vomiting, etc.,. However, due to the form of this product, this effect is not expected.

**Section VIII - Control Measures**

**Respiratory Protection (*Specify Type*):**

None required at normal handling temperatures if processing equipment is properly ventilated. If process fumes approach TLV, use a NIOSH approved organic vapor respirator following all the protocols of OSHA's Respiratory Standard (29 CFR 1910.134).

<b>Ventilation</b>	<b>Local Exhaust:</b> Recommended at all Process sites with capture velocity of 150 to 200 FPM.	<b>Special:</b> N/A
	<b>Mechanical (General):</b> Normally sufficient	<b>Other:</b> N/A
<b>Protective Gloves:</b> It is good industrial hygiene practice to wear gloves while handling uncured rubber products to prevent skin contact. Any type of glove should be adequate.	<b>Eye Protection:</b> Safety glasses should provide adequate protection.	
<b>Other Protective Clothing or Equipment:</b> Where contact may occur with hot material, wear thermal resistant hand and arm protection.		
<b>Work Hygienic Practices:</b> Avoid repeated or prolonged inhalation of process vapors.		