



## Material Safety Data Sheet

**Product: CoolPoly® E4501**

**MSDS Date:** 7-21-03  
**Product Name:** CoolPoly® E4501  
**Manufacturer:** Cool Polymers®, Inc.

### I. Product and Company Description

Cool Polymers®, Inc.  
333 Strawberry Field Rd.  
Warwick, RI 02886

**Emergency Phone Number:**  
US & CANADA: (800) 424-9300 CHEMTREC  
INTERNATIONAL: (703) 527-3887 CHEMTREC

**For Product Information:**  
(888) 811-3787

**Product Description:**  
Synthetic Thermoplastic Polymer

**Product Use:**  
Intended to produce molded or extruded articles.

**Chemical Name or Synonym:**  
NA

**Molecular Formula:**  
NA

### II. Chemical Composition

Product is composed of a blend of compounds. The following information is based on these compounds separately and not the blend as a whole.

Component	CAS#	%Composition
Proprietary Filler A	N/A	5-75
Proprietary Filler B	N/A	5-75
Polycarbonate	103598-77-2	20-90



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### **III. Hazards Identification**

#### **A. Emergency Overview:**

**Physical Appearance and Odor:**  
Pellets with no odor

#### **B. Potential Health Effects:**

**Acute Eye:**  
Dusts may be irritating to the eyes, possibly reddening them.

**Acute Skin:**  
No absorption hazard in normal industrial use.

**Acute Inhalation:**  
Inhaled dusts may cause irritation to the respiratory tract.

**Acute ingestion:**  
No hazard in normal industrial use.

**Chronic effects:**  
Inhalation of high concentrations of dust over prolonged periods of time has resulted in pulmonary fibrosis and emphysema.

### **IV. First Aid Measures**

#### **First Aid Measures for Accidental:**

**Eye Exposure:**  
Immediately flush eyes with plenty of water. Get medical attention, if irritation persists. Remove contact lenses after flushing.

**Skin Exposure:**  
Wash affected area with soap and water. Get medical attention if irritation develops or persists.

**Inhalation:**  
Remove to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

**Ingestion:**  
Give large quantities of water. Never give anything by mouth to an unconscious person.



## Material Safety Data Sheet

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**V. Fire Fighting Measures**

**Fire Hazard Data:**

Flash Point: N/A

Method Used: N/A

Flammability Limits (vol/vol%):                      Lower: N/A                      Upper: N/A

**Extinguishing Media:**  
Carbon Dioxide, foam, dry chemical

**Special Fire Fighting Procedures:**  
None

**Unusual Fire and Explosion Hazards:**  
Accumulations of dusts may cause shorting of electrical circuits. Dusts are ignitable, but require a high-temperature source of ignition and are insensitive to sparks.

**Hazardous Decomposition Materials (Under Fire Conditions):**  
Combustion produces trace amounts of phenol, carbon monoxide and carbon dioxide gases.

**VI. Accidental Release Measures**

**Cleanup and Disposal of Spill:**  
Normal housekeeping practices. Sweep or vacuum clean.

Dispose of materials according to the applicable Federal, State, or local regulations.

**VII. Handling and Storage**

**Handling:**  
If possible, avoid generating dusts as it may conduct electricity. Use caution when handling dust powder in areas where contact with electrical circuitry is possible.

**Storage:**  
Store in a well-ventilated, cool, dry place. Avoid excessive heat and ignition sources.

**VIII. Exposure Controls / Personal Protection**

**Exposure Guidelines:**

Component	Exposure limits		
	ACGIH	NIOSH	OSHA-PELs



## Material Safety Data Sheet

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Proprietary Filler A	0.1 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	30 mg/m <sup>3</sup> TWA, total dust 10 mg/m <sup>3</sup> TWA, respirable fraction
Proprietary Filler B	ND	ND	ND
Polycarbonate	ND	ND	ND

**Engineering Controls:**

Due to the encapsulated form of the proprietary filler, there should be little exposure to it under anticipated use conditions.

A continuous supply of fresh air to the workplace together with removal of processing fumes through exhaust systems is recommended. Processing fume condensate may be fire hazard and toxic; remove periodically from exhaust hoods, duct work, and other surfaces using appropriate personal protection. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.

Operations involving grinding or machining should be reviewed to ensure that dust levels are kept below recommended levels.

**Respiratory Protection:**

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or EN approved respirator when necessary.

**Eye / Face Protection:**

Wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166. Use full face shield when cleaning processing fume condensates from hoods, ducts, and other surfaces.

**Skin Protection:**

When handling pellets or powder, avoid prolonged or repeated contact with skin. During melt processing, wear long pants, long sleeves, insulated gloves, and a face shield.

**IX. Physical and Chemical Properties**

**Physical Appearance:** Solid pellet

**Odor:** Slight

**pH:** ND

**Specific Gravity:** >1

**Water Solubility:** Insoluble



## Material Safety Data Sheet

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**Melting Point Range:** >450F

**Vapor Pressure:** Negligible

**Percent Volatiles by Volume:** Negligible

### **X. Stability and Reactivity**

**Chemical Stability:**

Stable under standard use and storage conditions.

**Conditions to Avoid:**

In order to avoid autoignition/hazardous decomposition of hot thick masses of plastic, purgings should be collected in small, flat, shapes or thin strands to allow for rapid cooling. Quench in water. Do not allow product to remain in barrel at elevated temperatures for extended periods of time: purge with a general purpose resin. Avoid open flame.

**Materials / Chemicals to be Avoided:**

ND

**Hazardous Decomposition Products:**

Processing fumes evolved at recommended processing conditions may include trace levels of the following materials: carbon dioxide, carbon monoxide, sulfur dioxide, and carbonyl sulfide.

**Hazardous Polymerization:**

Should not occur

### **XI. Toxicological Information**

**Acute Eye Irritation:**

Dusts may be irritating to the eyes, possibly reddening them.

**Acute Skin Irritation:**

No absorption hazard in normal industrial use.

**Acute Dermal Toxicity:**

None

**Acute Respiratory Irritation:**

Inhaled dusts may cause irritation to the respiratory tract.

**Acute Ingestion Toxicity:**

No hazard in normal industrial use.

**Acute Inhalation Toxicity:**



## Material Safety Data Sheet

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Inhalation of high concentrations of dust over prolonged periods of time may cause pulmonary fibrosis and emphysema.

**Acute Oral Toxicity:**

ND

**Chronic Toxicity:**

ND

### **XII. Ecological Information**

**Ecotoxicological Information:**

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	Not Determined

**Chemical Fate Information:**

Not Determined

### **XIII. Disposal Considerations**

**Waste Disposal Method:**

Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

**Container Handling and Disposal:**

Dispose of container and unused contents in accordance with federal, state, and local regulations.

### **XIV. Transportation Information**

**US Department of Transportation Shipping Name:**

US Department of Transportation	Proper Shipping Name	Proprietary Filler	Polycarbonate
	Hazard Class	Not Regulated	Not Regulated
	ID Number	Not Regulated	Not Regulated
	Packaging Group	Not Regulated	Not Regulated
	Label Statement	Not Regulated	Not Regulated

### **XV. Regulatory Information**

**Federal Regulations:**

**SARA Title III Hazard Classes:**



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Fire Hazard:	NO
Reactive Hazard:	NO
Release of Pressure:	NO
Acute Health Hazard:	NO
Chronic Health Hazard:	NO

### Other Federal Regulations:

**State Regulations:**  
None

### XVI. Other Information

#### National Fire Protection Association Hazard Ratings – NFPA(R):

Health Hazard:	1
Flammability:	1
Reactivity:	0

#### Key Legend Information:

N/A – Not Applicable  
ND – Not Determined  
ACGIH – American Conference of Governmental Industrial Hygienists  
OSHA – Occupational Safety and Health Administration  
TLV – Threshold Limit Value  
PEL – Permissible Exposure Limit  
TWA – Time Weighted Average  
STEL – Short Term Exposure Limit  
NTP – National Toxicology Program  
IARC – International Agency for Research on Cancer

**The information contained herein is based on the data available to us and is believed to be correct. However Cool Polymers, Inc. makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.**