



Product Name: Tpcm 580 series,  
Tpcm 580S series

## Material Safety Data Sheet

(Prepared in accordance with OSHA Hazard communication  
Standard 29 CFR 1910.1200 Section (g)(c)(1))

**Manufacturer's Name:** Laird Technologies  
4707 Detroit Road  
Cleveland, OH 44102  
**Date of Preparation:** February 2007

**Emergency Telephone Number**  
\*\*\* (216) 939 - 2300 \*\*\*  
**Information Telephone Number**  
\*\*\* (216) 939 - 2300 \*\*\*

### Section 1: Product Identification

**Product Name:** Tpcm 580 series, Tpcm 580S series      **Synonym:** Phase Change Material  
**Chemical Family:** Mixture      **Formula:** Mixture

### Section 2: Composition Information

Component	CAS Reg. #	Weight %
Zinc Oxide	1314-13-2 <sup>‡</sup>	0 - 50 %

<sup>‡</sup> Zinc oxide a toxic chemical and subject to the report requirements of Section 313 of the Emergency Planning & Community Right-to-Know Act of 1986 and of 40 CFR Part 372.

### Section 3: Hazards Identification

#### Potential Health Effects:

**Ingestion:** Non-toxic by ingestion.  
**Skin:** Possible irritant on prolonged contact.  
**Inhalation:** Harmful if strongly heated vapors are inhaled.  
**Eyes:** May cause eye irritation.

**Medical Conditions Aggravated:** None known

**Subchronic Effects:** None known

**Chronic Effects/Carcinogenicity:** This product contains no carcinogens or suspected carcinogens, in concentrations of 0.1% or greater, as defined by OSHA, ACGIH, NTP, and IARC.

#### Section 4: First Aid Measures

**Ingestion:** Do not induce vomiting. Rinse mouth and seek medical attention.  
**Skin:** Wash with soap and water.  
**Inhalation:** Harmful if strongly heated vapors are inhaled. Remove to fresh air.  
**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

#### Section 5: Fire Fighting Measures

##### Flammable Properties:

**Flash Point:** Not Established

**Flammable Limits:** LFL: Not Established  
UFL: Not Established

**Sensitivity to Static Discharge:** Not expected

**Extinguishing Media:** Dry chemical, foam, water spray or fog, carbon dioxide.

**Fire & Explosion Hazards:** None known

**Special Firefighting Procedures:** Firefighters should be equipped with self-contained breathing apparatus to protect against toxic and irritating fumes.

#### Section 6: Accidental Release Measures

Wipe or scrape spilled material and dispose of material in accordance with federal, state, and local regulations.

#### Section 7: Handling and Storage

Keep container closed when not in use.

#### Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** No special ventilation requirements if good ventilation is maintained

**Personal Protective Equipment (PPE):** Where contact is likely, wear chemical resistant gloves, long sleeves, and safety glasses with side shields.

**General Hygiene Considerations:** Wash hands thoroughly after handling and before eating or drinking

##### Exposure Guidelines:

Component	CAS Reg #	OSHA PEL		ACGIH TLV	
		TWA	STEL	TWA	STEL
Zinc Oxide (resp dust)	1314-13-2	15 mg/m <sup>3</sup>	NE	5 mg/m <sup>3</sup>	NE

## Section 9: Physical / Chemical Properties

<b>Boiling Point:</b>	Not available	<b>Volatile by Volume:</b>	< 1.0 %
<b>Density:</b>	2.87/ml	<b>Vapor Pressure:</b>	Negative mm Hg @ 25° C
<b>Solubility in Water @ 20°C:</b>	Negative	<b>Evaporation Rate:</b>	Negative
<b>Vapor Density:</b>	Negligible (Air = 1)	<b>Physical State:</b>	Solid
<b>Appearance:</b>	Gray	<b>Odor:</b>	Mild odor

## Section 10: Stability and Reactivity

<b>Stability:</b>	Stable
<b>Conditions to Avoid:</b>	None known
<b>Materials to Avoid:</b>	Inorganic acids, oxidizing agents.
<b>Hazardous Polymerization:</b>	Does not occur
<b>Hazardous Decomposition Products:</b>	Carbon monoxide, carbon dioxide, and silicon dioxide.

## Section 11: Toxicological Information

Consult manufacturer for details.

## Section 12: Ecological Information

Consult manufacturer for details

## Section 13: Waste Disposal

Please refer to Sections 5, 6, and 15 for disposal and regulatory information.

## Section 14: Transport Information

**DOT Shipping Name:** None

**DOT Hazard Class:** None

**DOT Label(s):** None

**UN/NA Number:** None

**IATA:** None

**IMO - IMDG Code:** None

### Section 15: Regulatory Information

**SARA Section 302:** Not listed

**SARA Section 311, 312:** Not listed

**SARA Section 313:** This material contains Zinc oxide (CAS # 1314-13-2) which is subject to the reporting requirements of Section 3131 of SARA Title III and 40 CFR 372.

### Section 16: Other Information

**NOTICE:** The information herein is based on data considered to be accurate at date of preparation. No warranty is made as to the accuracy or completeness of the foregoing data and safety information. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.