



## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** PERMATEX® Medium Strength Threadlocker Blue GEL - 10 gm GEL TWIST™ tube, carded  
**Product Code:** 24010  
**Stock No.:** 24010  
**Manufacturer Name:** Permatex, Inc.  
**Address:** 10 Columbus Blvd.  
 Hartford, CT 06106  
 USA  
**General Phone Number:** 1-87-Permatex, (877) 376-2839  
**Emergency Phone Number:** 800-255-3924  
**CHEMTREC:** For emergencies in the US, call CHEMTREC: 800-424-9300  
**Canutec:** In Canada, call CANUTEC: (613) 996-6666 (call collect)  
**MSDS Revision Date:** September 28, 2010  
**MSDS Format:** According to ANSI Z400.1-2004

HMIS	
Health Hazard	2
Fire Hazard	1
Reactivity	1
Personal Protection	X

\* **Chronic Health Effects**

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Benzoate Esters	Mixture	10 - 30 by weight
Treated silicon dioxide, synthetic, crystalline free	67762-90-7	1 - 10 by weight
Titanium dioxide	13463-67-7	0.1 - 1.0 by weight
Dimethylbenzyl hydroperoxide	80-15-9	1 - 5 by weight
Propylene glycol	57-55-6	1 - 5 by weight
Polyethylene glycol dimethacrylate	25852-47-5	30 - 60 by weight
Polyester Resin	Mixture	10 - 30 by weight

## SECTION 3 - HAZARDS IDENTIFICATION

**Emergency Overview:** CAUTION! Harmful. Irritant.

**Route of Exposure:** Eyes. Skin. Inhalation. Ingestion.

**Potential Health Effects:**

**Eye:** Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.

**Skin:** Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling.

Inhalation:	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Chronic Health Effects:	Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

## SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

## SECTION 5 - FIRE FIGHTING MEASURES

Flash Point:	>200°F (93.3°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO <sub>2</sub> ) or dry chemical when fighting fires involving this material.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
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<b>Environmental Precautions:</b>	Avoid runoff into storm sewers, ditches, and waterways.
<b>Spill Cleanup Measures:</b>	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in section 8.
<b>Other Precautions:</b>	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

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## SECTION 7 - HANDLING and STORAGE

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<b>Handling:</b>	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
<b>Storage:</b>	Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use.
<b>Special Handling Procedures:</b>	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.
<b>Hygiene Practices:</b>	Wash thoroughly after handling.

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## SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

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<b>Engineering Controls:</b>	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
<b>Eye/Face Protection:</b>	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
<b>Skin Protection Description:</b>	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
<b>Respiratory Protection:</b>	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
<b>Other Protective:</b>	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

### EXPOSURE GUIDELINES

#### Titanium dioxide:

<b>Guideline ACGIH:</b>	10 mg/m <sup>3</sup>
	TLV-TWA: 10 mg/m <sup>3</sup>

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## SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

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<b>Physical State Appearance:</b>	Gel
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Color:	blue
Odor:	mild organic.
Boiling Point:	>400°F (148.8°C)
Melting Point:	Not determined.
Specific Gravity:	1.1
Solubility:	negligible
Vapor Density:	1.1 (air = 1)
Vapor Pressure:	<5 mmHg @68°F
Evaporation Rate:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	>200°F (93.3°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	Not determined.
VOC Content:	<2% by weight or 28 g/L
Percent Solids by Weight	100

## SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.
Incompatible Materials:	Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

## SECTION 11 - TOXICOLOGICAL INFORMATION

### [Treated silicon dioxide, synthetic, crystalline free :](#)

RTECS Number: VW3234375

### [Titanium dioxide :](#)

RTECS Number: XR2275000

Skin: Administration onto the skin - Human : 300 ug/3D (Intermittent)

Carcinogenicity: IARC: Group 2B: Possibly carcinogenic to humans.

### [Dimethylbenzyl hydroperoxide :](#)

RTECS Number: MX2450000

Eye: Eye - Rabbit Standard Draize test.: 1 mg  
Eye - Rabbit Standard Draize test.: 70%

Skin: Administration onto the skin - Rat : 500 mg/kg [Behavioral - Convulsions or

effect on seizure threshold Kidney/Ureter/Bladder - Hematuria]  
 Administration onto the skin - Rabbit : 1200 mg/kg [Cardiac - Pulse rate increase, without fall in BP Blood - changes in erythrocyte (RBC) count Nutritional and Gross Metabolic - Body temperature decrease]  
 Administration onto the skin - Mouse : 490 mg/kg [Details of toxic effects not reported other than lethal dose value]  
 Administration onto the skin - Mouse : 1200 mg/kg [Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Catalases Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other oxidoreductases Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - Other transferases]  
 Administration onto the skin - Rat : 250 mg/kg [Vascular - Structural changes in vessels Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 300 mg/kg [Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 2012 mg/kg/2W (Intermittent) [Skin and Appendages - Tumors Biochemical - Metabolism (Intermediary) - Other proteins]  
 Administration onto the skin - Mouse : 20.1 gm/kg/20W (Intermittent) [Skin and Appendages - Tumors Tumorigenic - Facilitates action of known carcinogen Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 30442 ug/kg/4W (Intermittent) [Biochemical - Metabolism (Intermediary) - Effect on inflammation or mediation of inflammation]  
 Administration onto the skin - Mouse : 100 mg/kg  
 Administration onto the skin - Rabbit : 500 mg  
 Administration onto the skin - Rabbit : 500 mg  
 Administration onto the skin - Mouse : 18000 ug/kg/18W (Intermittent) [Tumorigenic - carcinogenic by RTECS criteria Skin and Appendages - Tumors Tumorigenic - Facilitates action of known carcinogen]

**Inhalation:** Inhalation - Rat LC50: 220 ppm/4H [Lungs, Thorax, or Respiration - Dyspnea]  
 Inhalation - Mouse LC50: 200 ppm/4H [Lungs, Thorax, or Respiration - Dyspnea]

**Ingestion:** Oral - Rat LD50: 382 mg/kg [Kidney/Ureter/Bladder - Hematuria]  
 Oral - Mouse LD50: 342 mg/kg [Details of toxic effects not reported other than lethal dose value]  
 Oral - Rat LD50: 800 mg/kg [Details of toxic effects not reported other than lethal dose value]

Propylene glycol :

**RTECS Number:** TY2000000

**Eye:** Eye - Rabbit Standard Draize test.: 100 mg [mild]  
 Eye - Rabbit Standard Draize test.: 500 mg/24H [mild]

**Skin:** Administration onto the skin - Rabbit : 20800 mg/kg [Details of toxic effects not reported other than lethal dose value]  
 Administration onto the skin - Rabbit : 20800 mg/kg [Behavioral - Ataxia Behavioral - Tetany Lungs, Thorax, or Respiration - Respiratory depression]  
 Administration onto the skin - Human : 10 pph [Skin and Appendages - Dermatitis, allergic (After topical exposure)]  
 Administration onto the skin - Mouse : 1284800 mg/kg/2Y (Intermittent) [Skin and Appendages - Tumors]  
 Administration onto the skin - Human : 5 mg/kg/7D (Intermittent) [Skin and Appendages - Primary irritation (After topical exposure)]  
 Administration onto the skin - Human : 4.5 mg/kg/3D (Intermittent) [Skin and Appendages - Primary irritation (After topical exposure)]  
 Administration onto the skin - : 0.03 mL/kg/22D (Intermittent) [Skin and Appendages - Cutaneous sensitization, experimental (After topical exposure)]  
 Administration onto the skin - Human : 10 pph/48H (Continuous) [Skin and Appendages - Dermatitis, allergic (After topical exposure)]  
 Administration onto the skin - Human : 500 mg/7D  
 Administration onto the skin - Human : 104 mg/3D (Intermittent)  
 Administration onto the skin - : 10 %/2D  
 Administration onto the skin - : 30 %/96H (Continuous)  
 Administration onto the skin - : 30 %/96H

**Ingestion:** Oral - Mouse LD50: 22 gm/kg [Details of toxic effects not reported other

than lethal dose value]  
 Oral - Mouse LD50: 20300 mg/kg [Behavioral - Ataxia Behavioral - Tetany  
 Lungs, Thorax, or Respiration - Respiratory depression]  
 Oral - Rat LD50: 20 gm/kg [Details of toxic effects not reported other than  
 lethal dose value]

## SECTION 12 - ECOLOGICAL INFORMATION

**Ecotoxicity:** No ecotoxicity data was found for the product.  
**Environmental Fate:** No environmental information found for this product.

## SECTION 13 - DISPOSAL CONSIDERATIONS

**Waste Disposal:** Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.  
**RCRA Number:** Not determined.

## SECTION 14 - TRANSPORT INFORMATION

**DOT Shipping Name:** Non regulated.  
**DOT UN Number:** Not applicable.  
**DOT Hazard Class:** Not applicable.  
**DOT Packing Group:** Not applicable.

## SECTION 15 - REGULATORY INFORMATION

### Treated silicon dioxide, synthetic, crystalline free :

**TSCA Inventory Status:** Listed

**Canada DSL:** Listed

### Titanium dioxide :

**TSCA Inventory Status:** Listed

**Massachusetts:** Listed

**Pennsylvania:** Listed

**Canada DSL:** Listed

### Dimethylbenzyl hydroperoxide :

**TSCA Inventory Status:** Listed

**SARA:** EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

**New Jersey:** Listed: NJ Hazardous List; Substance Number: 0543

**Massachusetts:** Listed: Massachusetts Oil and Hazardous List

**Pennsylvania:** Listed

Canada DSL: Listed

Propylene glycol:

TSCA Inventory Status: Listed

Pennsylvania: Listed

Canada DSL: Listed

Polyethylene glycol dimethacrylate:

TSCA Inventory Status: Listed

Canada DSL: Listed

Canadian Regulations. WHMIS Hazard Class(es): D2B  
All components of this product are on the Canadian Domestic Substances List.

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## SECTION 16 - ADDITIONAL INFORMATION

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HMIS Health Hazard: 2

HMIS Fire Hazard: 1

HMIS Reactivity: 1

HMIS Personal Protection: X

MSDS Revision Date: September 28, 2010

MSDS Revision Notes: 9/22/2010

MSDS Author: Actio Corporation

**Disclaimer:** This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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