

MATERIAL SAFETY DATA SHEET: *Pulpdent Etch Royale™*

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**IDENTITY:** Trade Name: Pulpdent *Etch Royale™*  
Codes: ER, ER6, ER12G, ER24, ER50, ER50R  
Chemical Description: 37% Phosphoric acid in a soft gel base.  
Product Use: Dental etching material

**SECTION I**

*Pulpdent Corporation*

80 Oakland Street  
Watertown, MA 02472 USA

Date Prepared: September 1, 2007

*Phone Numbers:*

24 Hour Emergency: (800) 535-5053

Customer Service: (800) 343-4342/ (617) 926-6666

**SECTION II - HAZARDOUS INGREDIENTS**

<i>Ingredients</i>	<i>CAS RN</i>	<i>PEL/TLV</i>	<i>UN Number</i>
Phosphoric Acid	7664-38-2	1 mg/m <sup>3</sup> / 3 mg/m <sup>3</sup>	UN 1805
Amorphous, fumed silica	112945-52-5	6 mg/m <sup>3</sup> / 10 mg/m <sup>3</sup>	----

DOT HAZARD CLASS/ID No:

Class 8, III

WHMIS CLASSIFICATION:

Class E - Corrosive

NFPA HMIS RATING: HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

**SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS**

Boiling Point: 135°C

Specific Gravity: 1.30

Vapor Pressure: 0.0285

Melting Point: 42°C

Solubility in water: Complete

Odor Threshold: Not available

Appearance and Odor: Dark blue gel with characteristic odor.

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

Flash Point: Not combustible

Flammable limits: LEL N/A

UEL N/A

Extinguishing Media: Use water spray to keep fire-exposed containers cool. Extinguish fire using agent suitable for surrounding fire.

Special Fire Fighting Procedures: Protective clothing; positive-pressure, self-contained breathing apparatus.

Hazardous Combustion Products: Phosphoric acid can react with metals to liberate hydrogen, a flammable gas. Combustion by-products include oxides of phosphorus.

**SECTION V - REACTIVITY DATA**

Stability: Stable

Conditions to avoid: None

Incompatibility: Avoid contact with materials such as sulfides and sulfites which could release toxic gases. Avoid strong alkalis because high heat of reaction can generate steam. Avoid most metals because phosphoric acid can react to liberate hydrogen, a flammable gas.

Hazardous Decomposition Products: Toxic gases, steam, hydrogen (flammable), oxides of phosphorus.

Hazardous Polymerization: Does not occur. Conditions to avoid: None

**SECTION VI - HEALTH HAZARD DATA**

*Summary of Acute Hazards:* Corrosive material. Causes eye and skin burns. May not produce an immediate burning sensation upon skin contact, delaying awareness that contact has occurred.

<i>Route of Exposure</i>	<i>Signs &amp; Symptoms</i>
Inhalation	None expected under normal conditions of use of this product. However, if inhaled as a mist or vaporized, it can be irritating to the respiratory tract.
Eye Contact	Corrosive. May cause burns or irritation.
Skin Absorption	Slightly toxic.
Skin Contact	Corrosive. May cause burns or irritation. May not produce an immediate burning sensation, delaying awareness that contact has occurred.
Ingestion	Corrosive. Slightly toxic. May cause burns or irritation to the mouth, throat or gastrointestinal tract.

*Summary of Chronic Hazards:* None known.  
Carcinogenicity, Not known to be a carcinogen.  
Teratogenicity, Mutagenicity, Reproductive Toxicity: None known

*Emergency First Aid Procedures:*

Inhalation	Remove to fresh air. Seek medical attention if symptoms persist.
Eye contact	Immediately flush with running water for 15+ minutes until pH of tears is 7. Seek medical care.
Ingestion	Dilute with water/milk. Do not induce vomiting. Seek medical attention.
Skin contact	Immediately flush with running water for 15+ minutes. Seek medical attention. Remove contaminated clothing, wash before reuse.

**SECTION VII - PRECAUTIONS FOR SAFE HANDLING & USE**

Handling and Storage Precautions: Store tightly closed in cool, dry well-ventilated location away from heat sources and out of direct sunlight. Separate from alkalis and most metals.

Release or Spill: Wear gloves, chemical splash goggles. For small quantities (as in this product): absorb spill with dry paper towels. Place all material in chemical waste container for disposal. Flush spill area with water.

Waste Disposal Method: Follow all government regulations.

Other Precautions: Wash thoroughly after handling. Use with adequate ventilation. Keep container closed. Empty container retains vapor and product residue; observe all safeguards.

**SECTION VIII - CONTROL MEASURES**

Respiratory Protection: Under normal conditions of use of this product, surgical masks worn by dental staff are adequate. If used *in vivo*, a high speed evacuation tip should be used to protect patient. When airborne limits are exceeded, wear NIOSH-approved respirator with full face piece.

Ventilation: No special ventilation required under normal conditions of use of this product. For larger quantities, local mechanical exhaust ventilation to keep TLV < 3 mg/m<sup>3</sup>.

Protective Gloves: Chemically resistant gloves. Eye Protection: Chemically resistant splash goggles.

Other Protective Clothing or Equipment: Long sleeves, apron, lab coat over clothing to protect skin. If used *in vivo*, use rubber dam around tooth to be etched and high speed evacuator tip or other protective devices for patient. Emergency eye wash fountain should be available.

Work/Hygienic Practices: Wash thoroughly after handling. Clean protective equipment before reuse.

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*The information presented herein is believed to be factual as it has been derived from the works of persons believed to be qualified experts. However, nothing contained in this information is to be taken as a warranty or representation for which Pulpdent Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.*