


Trade Name: **Etch-Rite 38% Phosphoric Acid Etching Gel**

1.0 Commercial Product Name and Supplier		
1.1	Commercial product name / designation	<b>Etch-Rite, 38% Phosphoric Acid Etching Gel</b>
1.2	Application / Use	Dental etching gel for use by dental professional only.
1.2.2	SIC	851 Human health activity
1.2.3	Use Category	55
1.3	Manufacturer	<p><b>Pulpdent Corporation</b>                      80 Oakland Street, P.O. Box 780                      Watertown, MA 02472 USA</p> <p>Telephone: 1 617 926-6666; Fax: 1 617 926-6262                      Email: <a href="mailto:Pulpdent@pulpdent.com">Pulpdent@pulpdent.com</a></p>
1.4	Emergency Telephone Number	1-800-535-5053 (24 Hour Emergency / USA)
1.5	Authorized European Representative	<p>Advena Ltd.                      Pure Offices, Plato Close                      Warwick, CV34 6WE                      United Kingdom</p>

2.0 Hazards Identification												
2.1 Classification												
2.1.1	<b>Classification according to Regulation (EC) No. 1272/2008 [CLP]</b>	<table border="1"> <thead> <tr> <th>Hazard Class</th> <th>Hazard Category</th> <th>Hazard Statement</th> </tr> </thead> <tbody> <tr> <td>Skin corrosion</td> <td>1B</td> <td>H314</td> </tr> <tr> <td>Eye irritation</td> <td>2</td> <td>H319</td> </tr> </tbody> </table>	Hazard Class	Hazard Category	Hazard Statement	Skin corrosion	1B	H314	Eye irritation	2	H319	
Hazard Class	Hazard Category	Hazard Statement										
Skin corrosion	1B	H314										
Eye irritation	2	H319										
2.1.2	Classification according to Directive 67/548/EEC (See SECTION 16 for full text of risk phrases)	Corrosive (C); R 34; R 36 / 37 / 38										
2.2 GHS Label Elements												
Hazard Pictograms												
												
Signal Word: <b>DANGER</b>												
<b>Restricted to use by dental professional only.</b>												
<b>Hazard Statements</b>												
H314: Causes severe skin burns and eye damage.												
H319: Causes serious eye irritation.												
<b>Precautionary Statements</b>												
P264: Wash hands thoroughly after handling.												
P280: Wear protective gloves, clothing and eye/face protection.												
P301 + P330 + P331: If swallowed, rinse mouth. Do NOT induce vomiting.												
P303 + P361 + P353: If on skin (or hair), remove all contaminated clothing. Rinse skin with water.												
P363: Wash contaminated clothing before reuse.												
P310: Immediately call a Poison Center or doctor/physician.												
P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until pH of tears is 7.												

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<b>3.0 Composition</b>											
3.1	Chemical characterization of the preparation      Phosphoric acid in a gel matrix.										
3.2	Hazardous ingredients										
	<table border="1"> <thead> <tr> <th>CAS Number</th> <th>Name of the Ingredient</th> <th>Concentration</th> <th>Classification per 67/548/EEC</th> <th>Classification per Regulation (EC) No.1272/2008 (CLP).</th> </tr> </thead> <tbody> <tr> <td>7664-38-2</td> <td>Phosphoric Acid</td> <td>38%</td> <td>Corrosive (C) R34; R36/ 37/38</td> <td>Skin corrosion; 1B Eye irritant, 2</td> </tr> </tbody> </table>	CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1272/2008 (CLP).	7664-38-2	Phosphoric Acid	38%	Corrosive (C) R34; R36/ 37/38	Skin corrosion; 1B Eye irritant, 2
CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1272/2008 (CLP).							
7664-38-2	Phosphoric Acid	38%	Corrosive (C) R34; R36/ 37/38	Skin corrosion; 1B Eye irritant, 2							
<b>4.0 First Aid Measures</b>											
4.1	General Information      May cause burns or irritation to eyes, skin or mucous membranes. Acute effects may be delayed. Show this safety data sheet to medical personnel. Get medical attention in case of uncertainty.										
4.2	Eye Contact      Remove contact lenses. Keep eyelids apart and flush with running water for 15+ minutes or until pH of tears is 7. Get medical attention.										
4.3	Skin Contact      Immediately flush skin with running water for 15 minutes. Get medical attention for persistent irritation or burns.										
4.4	Ingestion      Rinse mouth with water. Do not induce vomiting. Give water to dilute. Get immediate medical attention. Never give anything by mouth to an unconscious person.										
4.5	Inhalation      Move to fresh air. If necessary, administer oxygen and/or artificial respiration and seek medical attention.										
4.6	Precautions for first responders      Ventilate the area. Wear safety glasses, gloves and lab coat.										
4.7	Information for physicians										
	Symptoms      Irritation, pain or redness in eyes, mucous membranes or skin. Acute effects may be delayed so continued monitoring of the patient is indicated.										
	Hazards      May cause burns or irritation to eyes, skin or mucous membranes. Acute effects may be delayed.										
	Treatment      Same as above under First Aid.										
<b>5.0 Fire Fighting Measures</b>											
5.1	Suitable extinguishing media      Not a fire hazard. Use water spray to keep fire-exposed containers cool. Extinguish fire with agent suitable for surrounding fire.										
5.2	Extinguishing media to avoid      None										
5.3	Special exposure hazards in a fire      Phosphoric acid can react with metals to liberate hydrogen, a flammable gas. Combustion by-products include oxides of phosphorus.										
5.4	Special protective equipment for fire-fighters      A self-contained breathing apparatus.										
<b>6.0 Accidental Release Measures</b>											
6.1	Personal precautions.      Wear chemical splash goggles and gloves.										
6.2	Environmental precautions      Avoid releasing large quantities into the environment as phosphoric acid may affect pH of water or soil.										

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6.3 Method for clean up For small quantities (as in this product): Wear safety glasses, lab coat and gloves. Absorb or wipe up spill with dry paper towels. Place all material in covered chemical waste container for disposal. Flush spill area with water.

**7.0 Handling and Storage**

7.1 Handling For use by dental professionals only. Wear safety glasses and gloves; wash hands after use. Avoid unnecessary exposure. Follow good hygiene practices. Protect soft tissue from etchant during intraoral procedures.

7.2 Storage Remove applicator tip after use. Keep tightly capped in original container. Store at cool room temperature. Avoid extremes of temperature (>27°C/80°F, <5°C/40°F), alkalis, sulfites, sulfides and most metals.

7.3 Specific uses Dental etchant

**8.0 Exposure Controls / Personal Protection**

8.1 Exposure limit values TWA: 1 mg/m<sup>3</sup> TLV: 3 mg/m<sup>3</sup>

8.2 Exposure controls

8.2.1 Occupational exposure controls No special equipment required under normal conditions of use of this product in the quantity provided.

8.2.1.1 Respiratory protection Good general ventilation is sufficient to control airborne vapors.

8.2.1.2 Hand protection No special requirements other than surgical gloves.

8.2.1.3 Eye protection No special requirements other than safety glasses.

8.2.1.4 Skin protection No special requirements. Good personal hygiene and safety practices, wearing a lab coat will protect from unnecessary exposure to etchant.

8.2.1.5 Other controls Emergency eye wash fountain should be available. Protect soft tissue from etchant during intraoral procedures. Wash hands after use.

8.2.2 Environmental exposure controls Avoid releasing large quantities of phosphoric acid into the environment as phosphoric acid may affect pH of water or soil.

**9.0 Physical and Chemical Properties**

9.1 Appearance / Color

9.1.1 Color / Physical state Medium blue, thixotropic gel.

9.1.2 Odor Mild, characteristic

9.2 Important health, safety and environmental information

9.2.1 pH pH 1

9.2.2 Boiling point 135°C

9.2.3 Flash point Not combustible

9.2.4 Flammability (solid, gas) Not combustible

9.2.5 Explosive properties Not applicable

9.2.6 Oxidizing properties Not determined

9.2.7 Vapor pressure 2.933 mbar / Id: C

9.2.8 Specific gravity 1.380

9.2.9 Solubility in water Complete

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9.2.10	Partition coefficient	Not determined
9.2.11	Viscosity	Not determined
9.2.12	Vapor density	Not determined
9.2.13	Evaporation rate	Not determined

#### **10.0 Stability and reactivity**

10.1	Conditions to avoid	Not applicable
10.2	Materials to avoid	Avoid contact with materials such as sulfides and sulfites that 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.
10.3	Hazardous decomposition products	Avoid contact with materials such as sulfides and sulfites that 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.
10.4	Further information	Stable under normal conditions of use and storage.

#### **11.0 Toxicological information**

11.1	Acute toxicity	Not toxic
11.2	Irritation and corrosiveness	Corrosive. May cause burns or irritation to eyes, skin, mouth, throat or gastrointestinal tract. Not expected to be an inhalation hazard unless product is misted or heated at high temperatures.
11.3	Sensitization	Not applicable.
11.4	Sub-acute, sub-chronic, prolonged toxicity	None known.
11.5	Carcinogenicity, Mutagenicity, Reproductive Toxicity	Not considered a carcinogen, mutagen, teratogen or reproductive toxin.
11.6	Empirical data	Not available
11.7	Clinical Experience	Using phosphoric acid etchants to prepare teeth for bonding procedures is a well-established (more than 20 years), industry-accepted, dental procedure. Etching enamel with phosphoric acid is safe and effective treatment in the hands of a dental professional.

#### **12.0 Ecological Information**

12.1	Ecotoxicity	No specific information available. Use according to good working practices. Avoid release into the environment as it may cause pH variation.
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#### **13.0 Disposal Considerations**

13.1	Regulations	Follow all local and national government regulations in disposing material or contaminated packaging.
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#### **14.0 Transport Information**

14.1	UN Number	1805
14.2	Technical name	Phosphoric acid
14.3	Packing group	Packing Group III

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14.4 IATA class Class 8, Corrosive

**15.0 Regulatory Information**

15.1 EU Class IIa medical device under MDD 93/42/EEC.

15.2 US FDA Class II medical device

15.3 Health Canada Class II medical device

**16.0 Other information**

16.1 List of relevant R phrases R 34: Causes burns  
 R 36 / 37 / 38: Irritating to eyes, respiratory system and skin.

16.2 Hazard Statements H314: Causes severe skin burns and eye damage.  
 H319: Causes serious eye irritation.

16.3 Precautionary Statements P264: Wash hands thoroughly after handling.  
 P280: Wear protective gloves, clothing and eye/face protection.  
 P301 + P330 + P331: If swallowed, rinse mouth. Do NOT induce vomiting.  
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16.4 Restrictions on use Dental etchants are to be sold to/used by dental professionals only.

16.5 Further information 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.

16.6 Sources of key data National Institute for Occupational Safety (NIOSH)  
 Occupational Safety and Health Administration (OSHA)  
 Eur-Lex European Union Law: Regulation (EC) No. 1272/2008 (CLP) and Regulation (EC) No. 1907/2006 (REACH).  
 Guidance on the compilation of safety data sheets. Version 1.1; December 2011. European Chemicals Agency

16.7 Information which has been added, deleted or revised. This Safety Data Sheet has been revised to meet the requirements of the GHS SDS format and Regulations (EC) No. 1272/2008 (CLP) and (EC) No. 1907/2006 (REACH). Specifically, Sections 2.1, 2.2, 3.2, 16.2, 16.3 have been modified.