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

1.0	Commercial Product Name and Supplier						
1.1	Commercial product name / designation <i>Etch-Rite</i> , 38% Phosphoric Acid Etching Gel			el			
1.2	Application / Use	Dental etching gel fo	r use by dental profession	al only.			
1.2.2	SIC	851 Human health a	ctivity				
1.2.3	Use Category	55					
1.3	Manufacturer						
	Pulpdent Corporation	Talanhana, 1,417,02	6 4444 Fow 1 417 004 4	24.2			
	80 Oakland Street, P.O. Box 780 Watertown, MA 02472 USA	Email: Pulpdent@pu	26-6666; Fax: 1 617 926-6. Ipdent.com	202			
1 /							
1.4	Emergency Telephone Number	1-800-535-5053 (24	Hour Emergency / USA)				
1.5	Authorized European Representative International Business Solutions Ltd.						
	54 Mayfield Ridge, Hatch Warren	Tel: 07989 407479; I	Fax: 01256 350330				
	Basingstoke, RG22 4RS UK	Email: <u>s.williams5@t</u>	otconnect.com				
2.0	Hazards Identification						
2.1	Classification						
2.1.1	Classification according to Regulation	Hazard Class	Hazard Category	Hazard Statement			
	(EC) No. 1272/2008 [CLP]	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: DANGER						
	Restricted to use by dental professional only.						
	Hazard Statements						
	H314: Causes severe skin burns and eye damage.						
	H319: Causes serious eye irritation.						
	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.						
	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.

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

3.0	Composition						
3.1	Chemical characterization of the preparation Phosphoric acid in a gel matrix.						
3.2	Hazardous ingredients						
	CAS Number	Name of the Ingredient	Concentration	Classification per 67/548/EEC	Classification per Regulation (EC) No.1278/2008 (CLP).		
	7664-38-2	Phosphoric Acid	38%	Corrosive (C) R34; R36/ 37/38	Skin corrosion; 1B Eye irritant, 2		
4.0	First Aid Mea	isures					
4.1	General Inform	nation	effects	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		immed	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.			loves and lab coat.			
4.7	Information for physicians						
	Symptoms			n, pain or redness in eyes, mucous e delayed so continued monitoring o			
	Hazards			May cause burns or irritation to eyes, skin or mucous membranes. Acute effects may be delayed.			
	Treatment		Same	Same as above under First Aid.			
5.0	Fire Fighting Measures						
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 expos	sure 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 protec fighters	ctive equipment for fire	- A self-contained breathing apparatus.				
6.0	Accidental Re	elease Measures					
6.1	Personal prec	autions.	Wear o	hemical splash goggles and gloves	ò.		
6.2	Environmenta	l precautions		Avoid releasing large quantities into the environment as phosphoric acid may affect pH of water or soil.			

# Pulpdent Corporation Safety Data Sheet

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

7.2Storagehands after use. Avoid unner practices. Protect soft tissue fro7.2StorageRemove applicator tip after use Store at cool room temper (>27°C/80°F, <5°C/40°F), alkalis7.3Specific usesDental etchant8.0Exposure Controls / Personal Protection8.1Exposure limit valuesTWA: 1 mg/m³ TLV: 3 mg/m8.2Exposure controls8.2.1Occupational exposure controlsNo special equipment require product in the quantity provided8.2.1.1Respiratory protectionGood general ventilation is suffi8.2.1.2Hand protectionNo special requirements other ti8.2.1.3Eye protectionNo special requirements other ti8.2.1.4Skin protectionNo special requirements. Goo wearing a lab coat will protect fr8.2.1.5Other controlsEmergency eye wash fountain etchant during intraoral procedure	only. Wear safety glasses and gloves; wash ccessary exposure. Follow good hygiene n etchant during intraoral procedures. e. Keep tightly capped in original container. rature. Avoid extremes of temperature , sulfites, sulfides and most metals.			
Ands after use. Avoid unner practices. Protect soft tissue fro7.2StorageRemove applicator tip after use. Store at cool room tempe (>27°C/80°F, <5°C/40°F), alkalis	ecessary exposure. Follow good hygiene n etchant during intraoral procedures. e. Keep tightly capped in original container. 			
Store at cool room tempe (>27°C/80°F, <5°C/40°F), alkalis         7.3       Specific uses       Dental etchant         8.0       Exposure Controls / Personal Protection         8.1       Exposure limit values       TWA: 1 mg/m³         8.2       Exposure controls       No special equipment require product in the quantity provided         8.2.1       Occupational exposure controls       No special requirements other ti approduct in the quantity provided         8.2.1.2       Hand protection       Good general ventilation is suffi         8.2.1.3       Eye protection       No special requirements other ti approtection         8.2.1.4       Skin protection       No special requirements. Goo wearing a lab coat will protect fr         8.2.1.5       Other controls       Emergency eye wash fountain etchant during intraoral procedu         8.2.2       Environmental exposure controls       Avoid releasing large quantities phosphoric acid may affect pH of         9.1       Appearance / Color       Medium blue, thixotropic gel.         9.1.2       Odor       Mild, characteristic         9.2       Important health, safety and environmental information       PH 1	rature. Avoid extremes of temperature , sulfites, sulfides and most metals.			
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8.2       Exposure controls         8.2.1       Occupational exposure controls       No special equipment require product in the quantity provided         8.2.1.1       Respiratory protection       Good general ventilation is suffi         8.2.1.2       Hand protection       No special requirements other ti         8.2.1.3       Eye protection       No special requirements other ti         8.2.1.4       Skin protection       No special requirements. Good wearing a lab coat will protect fr         8.2.1.5       Other controls       Emergency eye wash fountain etchant during intraoral procedu         8.2.2       Environmental exposure controls       Avoid releasing large quantities phosphoric acid may affect pH of operation         9.0       Physical and Chemical Properties       Medium blue, thixotropic gel.         9.1       Appearance / Color       Mild, characteristic         9.1.2       Odor       Mild, characteristic         9.2       Important health, safety and environmental information       pH 1	}			
8.2.1.1Respiratory protectionGood general ventilation is suffi8.2.1.2Hand protectionNo special requirements other ti8.2.1.3Eye protectionNo special requirements other ti8.2.1.4Skin protectionNo special requirements. Good wearing a lab coat will protect fr8.2.1.5Other controlsEmergency eye wash fountain etchant during intraoral procedu8.2.2Environmental exposure controlsAvoid releasing large quantities phosphoric acid may affect pH of9.0Physical and Chemical PropertiesMedium blue, thixotropic gel.9.1.1Color / Physical stateMedium blue, thixotropic gel.9.2Important health, safety and environmental informationpH 1				
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<ul> <li>8.2.1.3 Eye protection</li> <li>8.2.1.4 Skin protection</li> <li>8.2.1.4 Skin protection</li> <li>8.2.1.5 Other controls</li> <li>8.2.1.5 Other controls</li> <li>8.2.2 Environmental exposure controls</li> <li>Avoid releasing large quantities phosphoric acid may affect pH or physical and Chemical Properties</li> <li>9.1 Appearance / Color</li> <li>9.1.1 Color / Physical state</li> <li>9.1.2 Odor</li> <li>9.1.2 Odor</li> <li>9.1.4 Medium blue, thixotropic gel.</li> <li>9.1.2 Odor</li> <li>9.1.4 Mild, characteristic</li> <li>9.2 Important health, safety and environmental information</li> <li>9.2.1 pH</li> <li>9.1 pH 1</li> </ul>	cient to control airborne vapors.			
<ul> <li>8.2.1.4 Skin protection</li> <li>8.2.1.5 Other controls</li> <li>8.2.1.5 Other controls</li> <li>8.2.2 Environmental exposure controls</li> <li>9.0 Physical and Chemical Properties</li> <li>9.1 Appearance / Color</li> <li>9.1.1 Color / Physical state</li> <li>9.1.2 Odor</li> <li>9.1.2 Odor</li> <li>9.1.2 Odor</li> <li>9.1.4 Medium blue, thixotropic gel.</li> <li>9.1.2 Odor</li> <li>9.1.4 Mild, characteristic</li> <li>9.2 Important health, safety and environmental information</li> <li>9.2.1 pH</li> <li>9.1 pH 1</li> </ul>	nan surgical gloves.			
<ul> <li>Wearing a lab coat will protect fr</li> <li>8.2.1.5 Other controls</li> <li>Environmental exposure controls</li> <li>Avoid releasing large quantities phosphoric acid may affect pH or physical and Chemical Properties</li> <li>9.0 Physical and Chemical Properties</li> <li>9.1 Appearance / Color</li> <li>9.1.1 Color / Physical state</li> <li>9.1.2 Odor</li> <li>Mild, characteristic</li> <li>9.2 Important health, safety and environmental information</li> <li>9.2.1 pH</li> <li>pH 1</li> </ul>	nan safety glasses.			
etchant during intraoral procedu 8.2.2 Environmental exposure controls Avoid releasing large quantities phosphoric acid may affect pH of 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	d personal hygiene and safety practices, om unnecessary exposure to etchant.			
phosphoric acid may affect pH of phosphoric acid may aff	should be available. Protect soft tissue from res. Wash hands after use.			
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	of phosphoric acid into the environment as f water or soil.			
9.1.1Color / Physical stateMedium blue, thixotropic gel.9.1.2OdorMild, characteristic9.2Important health, safety and environmental information9.2.1pHpH 1				
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<ul><li>9.2 Important health, safety and environmental information</li><li>9.2.1 pH pH 1</li></ul>				
9.2.1 pH pH 1				
	Important health, safety and environmental information			
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 / ld: C				
9.2.8 Specific gravity 1.380				
9.2.9 Solubility in water Complete				

Trade Name:	Etch-Rite	38% Phos	nhoric A	cid Etchina	Gel
made marile.		30/01 1103			001

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.	
13.0	Disposal Considerations		
13.1	Regulations	Follow all local and national government regulations in disposing material or contaminated packaging.	
14.0	Transport Information		
14.1	UN Number	1805	
		Phosphoric acid	
14.2	Technical name	Phosphoric acid	

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

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	<ul> <li>P264: Wash hands thoroughly after handling.</li> <li>P280: Wear protective gloves, clothing and eye/face protection.</li> <li>P301 + P330 + P331: If swallowed, rinse mouth. Do NOT induce vomiting.</li> <li>P303 + P361 + P353: If on skin (or hair), remove all contaminated clothing. Rinse skin with water.</li> <li>P363: Wash contaminated clothing before reuse.</li> <li>P310: Immediately call a Poison Center or doctor/physician.</li> <li>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.</li> </ul>
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.