### **SAFETY DATA SHEETS**

This SDS packet was issued with item: 075897848

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

073650017 075897806 075897814 075897822 075897830 075897855 075897863

### Trade Name: Etch Royale, 37% Phosphoric Acid Etching Gel

| 1.0   | Commercial Product Name and Supplier  |   |   |                      |  |  |
|-------|---|---|---|----------------------|--|--|
| 1.1   | Commercial product name / designation   | Etch Royale, 37% F  | Phosphoric Acid Etching (                 | Gel                  |  |  |
| 1.2   | Application / Use   | Dental etching gel fo   | r use by dental professiona               | l only.              |  |  |
| 1.2.2 | SIC   | 851 Human health a  | ctivity                                   |                      |  |  |
| 1.2.3 | Use Category  | 55  |   |                      |  |  |
| 1.3   | Manufacturer  |   |   |                      |  |  |
|       | Pulpdent Corporation<br>80 Oakland Street, P.O. Box 780<br>Watertown, MA 02472 USA  | Telephone: 1 617 92<br>Email: <u>Pulpdent@pu</u>                            | 26-6666; Fax: 1 617 926-62<br>Ilpdent.com | 62                   |  |  |
| 1.4   | Emergency Telephone Number  | 1-800-535-5053 (24  | Hour Emergency / USA)                     |                      |  |  |
| 1.5   | Authorized European Representative  | Advena Ltd.<br>Pure Offices, Plato C<br>Warwick, CV34 6WE<br>United Kingdom |   |                      |  |  |
| 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); F  | 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   | 2.  |   |                      |  |  |
|       | H319: Causes serious eye irritation.<br>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.<br>P310: Immediately call a Poison Center or doctor/physician.   |   |   |                      |  |  |
|       | P310: Immediately call a Polson Center or doctor/physician.<br>P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and |   |   |                      |  |  |
|       |   |   |   | noos, ir prosont unu |  |  |
|       | easy to do. Continue rinsing until pH of tears is 7.  |   |   |                      |  |  |
| 3.0   | easy to do. Continue rinsing until pH of tears is 7.<br>Composition   |   |   |                      |  |  |

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| 3.2  | Hazardous ing  | redients   |   |   |   |
|--|--|--|---|---|---|
|  | CAS<br>Number  | Name of the<br>Ingredient  | Concentration   | Classification per 67/548/EEC   | Classification per Regulation<br>(EC) No.1272/2008 (CLP). |
|  | 7664-38-2  | Phosphoric Acid  | 37%   | Corrosive (C)<br>R34; R36/ 37/38  | Skin corrosion; 1B<br>Eye irritant, 2                     |
| 4.0  | First Aid Mea  | sures  |   |   |   |
| 4.1  | General Inforr   | neral 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  |  | imme  | 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 artifici respiration and seek medical attention.  |   |
| 4.6  | Precautions for first responders Ventilate the area. Wear safety glasses, gloves and lab coat. |  | gloves and lab coat.  |   |   |
| 4.7  | Information fo   | r physicians   |   |   |   |
| SymptomsIrritation, pain or redness in eyes, mucous mer<br>effects may be delayed so continued monitoring ofHazardsMay cause burns or irritation to eyes, skin or mur<br>effects may be delayed. |  |  |   |   |   |
|  |  |  | kin or mucous membranes. Acute  |   |   |
|  | Treatment  |  | Same  | as above under First Aid.   |   |
| 5.0  | Fire Fighting Measures   |  |   |   |   |
| 5.1  | Suitable extinguishing media   |  |   | fire hazard. Use water spray to k<br>uish fire with agent suitable for surro  |   |
| 5.2  | Extinguishing media to avoid   |  | None  | 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 protec<br>fighters   | tive equipment for fire  | e- A self<br>person   | -contained breathing apparatus nel.   | should be worn by firefighting                            |
| 6.0  | Accidental Re  | elease Measures  |   |   |   |
| 6.1  | Personal precautions.  |  | Wear of   | Wear chemical splash goggles and gloves.  |   |
| 6.2  | Environmenta   | l precautions  | Avoid releasing large quantities into the environment as phosphoric acid<br>may affect pH of water or soil. |   |   |
| 6.3  | Method for cle   | ean up   | gloves  | all quantities (as in this product):<br>Absorb or wipe up spill with dry p<br>d chemical waste container for disp   | paper towels. Place all material in                       |

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| 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                                 | Dark blue gel  |
| 9.1.2   | Odor   | Mild, characteristic   |
| 9.2     | Important health, safety and environmental information |  |
| 9.2.1   | рН   | рН 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 / ld: C   |
| 9.2.8   | Specific gravity                                       | 1.300  |
| 9.2.9   | Solubility in water                                    | Complete   |
| 9.2.10  | Partition coefficient                                  | Not determined   |
| 9.2.11  | Viscosity  | Not determined   |

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| 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<br>release toxic gases. Avoid strong alkalis because high heat of<br>reaction can generate steam. Avoid most metals because<br>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<br>release toxic gases. Avoid strong alkalis because high heat of<br>reaction can generate steam. Avoid most metals because<br>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<br>or gastrointestinal tract. Not expected to be an inhalation hazard<br>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  |
| 14.2   | Technical name                                       | Phosphoric acid   |
| 14.3   | Packing group  | Packing Group III   |
| 14.4   | IATA class   | Class 8, Corrosive  |

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| Trade Name: Etch Royale, 37% Phosphoric Acid Etching Gel |
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| 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<br>R 36 / 37 / 38: Irritating to eyes, respiratory system and skin.   |
| 16.2 | Hazard Statements                                     | H314: Causes severe skin burns and eye damage.<br>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<br>been derived from the works of persons believed to be qualified<br>experts. However, nothing contained in this information is to be<br>taken as a warranty or representation for which Pulpdent<br>Corporation bears legal responsibility. The user should review any<br>recommendations in the specific context of the intended use to<br>determine whether they are appropriate.   |
| 16.6 | Sources of key data                                   | National Institute for Occupational Safety (NIOSH)<br>Occupational Safety and Health Administration (OSHA)<br>Eur-Lex European Union Law: Regulation (EC) No. 1272/2008<br>(CLP) and Regulation (EC) No. 1907/2006 (REACH).<br>Guidance on the compilation of safety data sheets. Version 1.1;<br>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.   |