## **SAFETY DATA SHEETS**

## This SDS packet was issued with item:

075914445

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

075914452 075914478

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).

075896113 075914460

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

| 1.0   | Commercial Product Name and Supplier  |  |                                     |                  |
|-------|---|--|-------------------------------------|------------------|
| 1.1   | Commercial product name / designation   | Etch-Rite, 38% Phosphoric Acid Etching Gel                                       |                                     |                  |
| 1.2   | Application / Use   | Dental etching gel for u   | ise by dental profession            | al only.         |
| 1.2.2 | SIC   | 851 Human health activ   | vity                                |                  |
| 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: 1 617 926-<br>Email: Pulpdent@pulpo                                   | 6666; Fax: 1 617 926-62<br>dent.com | 262              |
| 1.4   | Emergency Telephone Number  | 1-800-535-5053 (24 Ho  | our Emergency / USA)                |                  |
| 1.5   | Authorized European Representative  | Advena Limited<br>Tower Business Centre<br>Tower Street,<br>Swatar, BKR 4013 Mal |                                     |                  |
|       | UK Responsible Person   | Advena Limited<br>Pure Offices, Plato Clo<br>Warwick, CV34 6WE U                 |                                     |                  |
| 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<br>Serious eye damage   | 1B<br>1                             | H314<br>H318     |
| 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  |  |                                     |                  |

Rev. Date: April 4, 2022

#### 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.

H318: Causes serious eye damage.

#### **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.

| 3.0                            | Composition   |                           |   |  |  |  |
|--------------------------------|---|---------------------------|---|--|--|--|
| 3.1                            | Chemical characterization of the preparation Phosphoric acid in a gel matrix.   |                           |   |  |  |  |
| 3.2                            | Hazardous ingredients   |                           |   |  |  |  |
|                                | CAS<br>Number   | Name of the<br>Ingredient | Concentration   | Classification per 67/548/EEC  | Classification per Regulation (EC) No.1272/2008 (CLP). |  |
|                                | 7664-38-2   | Phosphoric Acid           | 38%   | Corrosive (C)<br>R34; R36/ 37/38   | Skin corrosion; 1B<br>Eye damage, 1                    |  |
| 4.0                            | First Aid Mea   | sures                     |   |  |  |  |
| 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  | ·                         |   |  |  |  |
| 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 fo  | or first responders       | Ventilate the area. Wear safety glasses, gloves and lab coat.   |  |  |  |
| 4.7 Information for physicians |   |                           |   |  |  |  |
|                                | Symptoms  |                           |   | n, pain or redness in eyes, mucous<br>e delayed so continued monitoring o  |  |  |
|                                | Hazards   |                           | May cause burns or irritation to eyes, effects may be delayed.  |  | kin or mucous membranes. Acute                         |  |
|                                | Treatment   |                           | Same  | Same as above under First Aid.   |  |  |
| 5.0                            | Fire Fighting   | Measures                  |   |  |  |  |
| 5.1                            | Suitable extinç   | guishing media            |   | fire hazard. Use water spray to k<br>uish fire with agent suitable for surro   |  |  |
| 5.2                            | Extinguishing   | media to avoid            | None  |  |  |  |
| 5.3                            | Special expos   | ure hazards in a fire     |   | noric acid can react with metals to lil<br>ustion by-products include oxides of  |  |  |
| 5.4                            | Special protecting fighters   | tive equipment for fire   | e- A self-o   | contained breathing apparatus.   |  |  |
| 6.0                            | Accidental Re   | elease Measures           |   |  |  |  |
| 6.1                            | Personal prec   | autions.                  | Wear  | chemical splash goggles and gloves   | ).   |  |
| 6.2                            | Environmental   | l precautions             |   | eleasing large quantities into the er<br>oH of water or soil.  | nvironment as phosphoric acid may                      |  |
| 6.3                            | Method for cle  | an up                     | gloves  | nall quantities (as in this product): Note that Absorb or wipe up spill with dry perfect dispersion of the container for dispe | paper towels. Place all material in                    |  |
| 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/m³ TLV: 3 mg/m³  |  |
| 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 in | formation  |  |
| 9.2.1   | рН  | 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 / ld: C   |  |
| 9.2.8   | Specific gravity                              | 1.380  |  |
| 9.2.9   | Solubility in water                           | Complete   |  |
| 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  |  |
| 12.0   | 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.   |
|  |   | practices. Avoid release into the environment as it may cause pH   |
| 12.1   | Ecotoxicity   | practices. Avoid release into the environment as it may cause pH   |
| 12.1   | Ecotoxicity  Disposal Considerations  | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing   |
| 12.1<br>13.0<br>13.1   | Ecotoxicity  Disposal Considerations  Regulations   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing   |
| 12.1<br>13.0<br>13.1<br>14.0   | Disposal Considerations Regulations Transport Information   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.   |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1   | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.   |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2   | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number  Technical name   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid   |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2<br>14.3                                 | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number  Technical name  Packing group  | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III   |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2<br>14.3<br>14.4                         | Disposal Considerations Regulations Transport Information UN Number Technical name Packing group IATA class   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III   |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2<br>14.3<br>14.4<br>15.0                 | Disposal Considerations  Regulations  Transport Information  UN Number  Technical name  Packing group  IATA class  Regulatory Information   | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III Class 8, Corrosive  |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2<br>14.3<br>14.4<br>15.0<br>15.1         | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number  Technical name  Packing group  IATA class  Regulatory Information  EU                        | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III Class 8, Corrosive  Class IIa medical device under MDD 93/42/EEC.                         |
| 12.1<br>13.0<br>13.1<br>14.0<br>14.1<br>14.2<br>14.3<br>14.4<br>15.0<br>15.1<br>15.2 | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number  Technical name  Packing group  IATA class  Regulatory Information  EU  US FDA                | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III Class 8, Corrosive  Class IIa medical device under MDD 93/42/EEC. Class II medical device |
| 12.1  13.0  13.1  14.0  14.1  14.2  14.3  14.4  15.0  15.1  15.2  15.3               | Ecotoxicity  Disposal Considerations  Regulations  Transport Information  UN Number  Technical name  Packing group  IATA class  Regulatory Information  EU  US FDA  Health Canada | practices. Avoid release into the environment as it may cause pH variation.  Follow all local and national government regulations in disposing material or contaminated packaging.  1805 Phosphoric acid Packing Group III Class 8, Corrosive  Class IIa medical device under MDD 93/42/EEC. Class II medical device |

|      |   | H318: Causes serious eye damage.   |
|------|---|--|
| 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. 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. |
| 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.   |

Trade Name: **DenTASTIC UNO-DUO** 

| 1.0   | Commercial Product Name and Supplier  |   |                           |                       |
|-------|---|---|---------------------------|-----------------------|
| 1.1   | Commercial product name / designation   | DenTASTIC UNO-DUO   |                           |                       |
| 1.2   | Application / Use   | Dental bonding agent for use by dentists.                                   |                           |                       |
| 1.2.2 | SIC   | 851 Human health a  | ctivity                   |                       |
| 1.2.3 | Use Category  | 55  |                           |                       |
| 1.3   | Manufacturer  |   |                           |                       |
|       | <b>Pulpdent Corporation</b><br>80 Oakland Street, P.O. Box 780<br>Watertown, MA 02472 USA       | Telephone: 1 617 92<br>Fax: 1- 617 926-626<br>Email: <u>Pulpdent@pu</u>     | 2                         |                       |
| 1.4   | Emergency Telephone Number  | 1-800-535-5053 (24  | Hour / USA)               |                       |
| 1.5   | Authorized European Representative  | Advena Limited<br>Tower Business Cer<br>Tower Street,<br>Swatar, BKR 4013 N |                           |                       |
|       | UK Responsible Person   | Advena Limited<br>Pure Offices, Plato C<br>Warwick, CV34 6WE                |                           |                       |
| 2.0   | Hazards Identification  |   |                           |                       |
| 2.1   | Classification  |   |                           |                       |
| 2.1.1 | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                 | Hazard Class Flammable liquid   | Hazard Category 2         | Hazard Statement H225 |
|       | . ,   | Eye irritation  | 2                         | H319                  |
|       |   | STOT SE   | 3                         | H335                  |
|       |   | Skin irritation   | 2                         | H315; EUH066          |
|       |   | Skin sensitization  | 1                         | H317                  |
| 2.1.2 | Classification according to Directive 67/548/EEC (See SECTION 16 for full text of risk phrases) | Flammable (F), Irrita   | nt (Xi). R11- 36 / 37 / 3 | 38; R 43; R66         |
| 2.2   | CHC Label Flamenta  |   |                           |                       |

#### 2.2 GHS Label Elements

Hazard Pictograms





Signal Word: **DANGER** 

Restricted to use by dental professional only

**Hazard Statements:** 

H225: Highly flammable liquid and vapor. Category 2. H319: Causes serious eye irritation. Category 2.

H335: Specific Target Organ Toxicity (STOT), single exposure, respiratory tract, Category 3: May cause respiratory irritation.

H315: Causes skin irritation. Category 2.

EUH066: Repeated exposure may cause skin dryness or cracking.

Trade Name: DenTASTIC UNO-DUO

H317: May cause an allergic skin reaction. Category 2.

#### **Precautionary Statements:**

P210: Keep away from heat, sparks, open flame, hot surfaces. No smoking.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P261: Avoid breathing fumes.

P280: Wear protective gloves/ clothing and eye protection.

P304+P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353: If on skin or hair, remove contaminated clothing. Rinse skin with water.

P370+P378: In case of fire, use dry chemical, alcohol foam, or carbon dioxide for extinction.

| 3.0        | Composition                     | 1                                     |   |   |   |
|------------|---------------------------------|---------------------------------------|---|---|---|
| 3.1        | Chemical char                   | acterization of the prepa             | aration:  | Methacrylate ester monon  | ners in acetone vehicle.  |
| 3.2        | Hazardous ing                   | Hazardous ingredients                 |   |   |   |
|            | CAS<br>Number                   | Name of the ingredient                | Concentration   | Classification per 67/548/EEC   | Classification per Regulation (EC)<br>No.1272/2008 (CLP).   |
|            | 67-64-1                         | Acetone                               | 50% to 80%  | Flammable (F);<br>Irritant (Xi).<br>R11- 36/ 37/38-66   | Flammable liquid; Category 2 Eye irritation; Category 2 STOT SE; Category 3 Skin irritation; Category 2 |
|            |                                 | Methacrylate ester monomers           | 5% to 50%   | Irritant (Xi). R 43   | Skin sensitization; Category 1  |
| 4.0        | First Aid Measures              |                                       |   |   |   |
| 4.1        | ppm i<br>Methad<br>contac       |                                       | nay cause irritation of i<br>rylate may cause sensiti | yes or skin on contact. Exposure to >750 respiratory tract, mucous membranes. zation of skin with prolonged/repeated heet to medical personnel. Get medical |   |
| 4.2        |                                 |                                       | yelids apart and flush wi<br>attention.               | th running water for 15+ minutes. Get   |   |
| 4.3        |                                 |                                       | nd running water. Use hand                            | ng. Immediately wash skin well with mild d cream. Get medical attention if irritation   |   |
| 4.4        | Ingestion                       |                                       |   |   | water to dilute, but only if person is . Get immediate medical attention.                               |
| 4.5        | Inhalation                      |                                       |   | o fresh air. If necessary, adr<br>ek medical attention.   | minister oxygen and/or artificial respiration   |
| 4.6<br>4.7 | Precautions for Information for | for first responders<br>or physicians | Ventilat  | e the area. Wear safety gla   | sses and gloves to prevent contact.   |
|            | Symptoms                        |                                       |   | n, pain or redness in eyes<br>s system depressant.  | s, throat or on skin. Headache, fatigue.  |

Trade Name: **DenTASTIC UNO-DUO** 

|         | Hazards  | Acetone may cause irritation of eyes or skin on contact. Exposure to >750 ppm may cause irritation of respiratory tract and mucous membranes. Persons with chronic respiratory or skin disease are at increased risk with prolonged exposure to acetone. Methacrylate may cause sensitization of skin with prolonged and/or repeated contact. |
|---------|--|---|
|         | Treatment                                      | Same as above under First Aid.  |
| 5.0     | Fire Fighting Measures                         |   |
| 5.1     | Suitable extinguishing media                   | Use dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective, but should be used to keep fire-exposed containers cool.   |
| 5.2     | Extinguishing media to avoid                   | Water may be ineffective, but will keep fire-exposed containers cool.   |
| 5.3     | Special exposure hazards in a fire             | Thermal decomposition may produce toxic oxides of carbon.   |
| 5.4     | Special protective equipment for fire-fighters | Self-contained breathing apparatus  |
| 6.0     | Accidental Release Measures                    |   |
| 6.1     | Personal precautions.                          | Wear chemical splash goggles, gloves and lab coat.  |
| 6.2     | Environmental precautions                      | Avoid releasing large quantities into environment.  |
| 6.3     | Method for clean up                            | For small quantities (as in this product): Wear gloves and safety glasses. Wipe up with absorbent material, such as paper or cloth. Rinse area of spill with soap and water. Place all absorbent material in closed container away from heat, sparks, sun and oxidizers.  |
| 7.0     | Handling and Storage                           |   |
| 7.1     | Handling                                       | For professional use only. Avoid cross-contamination. Avoid sources of ignition, intense light. Empty containers may retain residual product; handle appropriately. Keep tightly capped in original container.  |
| 7.2     | Storage  | Replace cap over applicator tip immediately after use. Keep tightly capped in original container. Store at cool room temperature in a well-ventilated area. Avoid extremes of temperature (>27°C/80°F, <5°C/40°F), sparks, direct sunlight, oxidizing agents. Vapor may form flammable mixtures with air.                                     |
| 7.3     | Specific uses                                  | Dental adhesive   |
| 8.0     | Exposure Controls / Personal Protection        |   |
| 8.1     | Exposure limit values                          | Acetone: 750 ppm  |
| 8.2     | Exposure controls                              |   |
| 8.2.1   | Occupational exposure controls                 | Wear chemical splash goggles, gloves, lab coat. No other special equipment or ventilation required under normal conditions of use. For large quantities/prolonged exposure, use enclosure, local ventilation and dilution to reduce concentration below TLV.  |
| 8.2.1.1 | Respiratory protection                         | Good general ventilation is sufficient to control any airborne vapors.  |
| 8.2.1.2 | Hand protection                                | No special requirements. Surgical gloves will limit contact.  |
| 8.2.1.3 | Eye protection                                 | Safety glasses.   |
| 8.2.1.4 | Skin protection                                | No special requirements.  |
|         | •  |   |

Trade Name: **DenTASTIC UNO-DUO** 

| 8.2.1.5 | Other controls                                   | Emergency eye wash fountain should be close by. Do not eat, drink or smoke. Avoid contact with eyes, skin or clothing. Avoid breathing vapors. Wash hands after use.   |
|---------|--|--|
| 8.2.2   | Environmental exposure controls                  | Follow all government regulations.   |
| 9.0     | Physical and Chemical Properties                 |  |
| 9.1     | Appearance / Color                               |  |
| 9.1.1   | Color  | UNO: Yellow resinous liquid; DUO: Pale yellow to amber thin liquid   |
| 9.1.2   | Odor   | Characteristic, sweet, mint-like acetone odor  |
| 9.2     | Important health, safety and environmental infor | mation   |
| 9.2.1   | рН   | Not applicable   |
| 9.2.2   | Boiling point                                    | Boiling Point: 56.5°C  |
| 9.2.3   | Flash point                                      | -18°C (Tag closed cup)   |
| 9.2.4   | Ignition temperature                             | Not determined   |
| 9.2.5   | Explosive properties                             | Lower 2.5 Upper 12.8   |
| 9.2.6   | Odor threshold                                   | 159 ppm  |
| 9.2.7   | Vapor pressure                                   | 180 mm Hg / 239.98 mbar / Id: E  |
| 9.2.8   | Specific gravity                                 | DenTASTIC UNO: 0.788; DUO: 0.795   |
| 9.2.9   | Solubility in water                              | Acetone: Very soluble. Resins: Insoluble   |
| 9.2.10  | Partition coefficient                            | Not determined   |
| 9.2.11  | Viscosity  | Not determined   |
| 9.2.12  | Vapor density                                    | 2  |
| 9.2.13  | Evaporation rate                                 | 6  |
| 10.0    | Stability and reactivity                         |  |
| 10.1    | Conditions to avoid                              | Heat, sparks, open flame, cross-contamination.   |
| 10.2    | Materials to avoid                               | Acetyl chloride, acids, bases, amines, bromines, chloroform, hydrogen peroxide, strong oxidizers, plastics, rayon, ketones and acetaldehyde.   |
| 10.3    | Hazardous decomposition products                 | Thermal decomposition may produce toxic oxides of carbon.  |
| 10.4    | Further information                              | Stable if stored and used as directed.   |
| 11.0    | Toxicological information                        |  |
| 11.1    | Acute toxicity                                   | Minimal health hazard under normal conditions of dental practice. For large quantities/prolonged exposure, acetone is a significant health hazard. LD $_{50}$ in rats: 10.7 ml/kg orally. Exposure to >750 ppm may irritate respiratory tract. |
| 11.2    | Irritation and corrosiveness                     | May cause irritation of eyes or skin on contact. May cause irritation of respiratory tract if inhaled.   |
| 11.3    | Sensitization                                    | Prolonged or repeated exposure may cause sensitization.  |
|         |  |  |

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| 11.4 | Sub-acute, sub-chronic and prolonged toxicity        | No chronic health hazard under normal conditions of use. Prolonged and/or repeated exposure to methacrylates may cause sensitization. Prolonged and/or repeated exposure to acetone may cause skin to dry and crack.  |
|------|--|---|
| 11.5 | Carcinogenicity, Mutagenicity, Reproductive Toxicity | None known  |
| 11.6 | Empirical data                                       | None available  |
| 11.7 | Clinical experience                                  | Dental adhesives with an acetone base have been used for decades with a high benefit-to-risk ratio. There is no evidence of short-term or long-term risk or any problems after thousands of procedures.   |
| 12.0 | Ecological Information                               |   |
| 12.1 | Ecotoxicity  | Follow good working practices and all government regulations.  Avoid release into environment.  |
| 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  | 1090  |
| 14.2 | Technical name                                       | Acetone   |
| 14.3 | Packing group  | Packing Group II  |
| 14.4 | IATA class   | 3   |
| 15.0 | Regulatory Information                               |   |
| 15.1 | EU   | Class IIa medical devices under MDD 93/42/EEC.  |
| 15.2 | US FDA   | Class II medical devices.   |
| 15.3 | Health Canada  | Class III medical devices   |
| 16.0 | Other information                                    |   |
| 16.1 | List of relevant R phrases                           | R11: Highly flammable R 36 / 37 / 38: Irritating to eyes, respiratory system and skin. R43: May cause sensitization by skin contact R66: Repeated exposure may cause skin dryness or cracking.  |
| 16.2 | Hazard Statements                                    | H225: Highly flammable liquid and vapor. Category 2. H319: Causes serious eye irritation. Category 2. H335: Specific Target Organ Toxicity (STOT), single exposure, respiratory tract, Category 3: May cause respiratory irritation. H315: Causes skin irritation. Category 2. EUH066: Repeated exposure may cause skin dryness or cracking. H317: May cause an allergic skin reaction. Category 2. |

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| 16.3 | Precautionary Statements                              | P210: Keep away from heat, sparks, open flame, hot surfaces. No smoking.  P403+P233: Store in a well-ventilated place. Keep container tightly closed.  P261: Avoid breathing fumes.  P280: Wear protective gloves/ clothing and eye protection.  P304+P340: If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.  P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P303+P361+P353: If on skin or hair, remove contaminated |
|------|---|---|
|      |   | clothing. Rinse skin with water. P370+P378: In case of fire, use dry chemical, alcohol foam, or carbon dioxide for extinction.  |
| 16.4 | Restrictions on use                                   | DenTASTIC dental adhesives are to be sold to and 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.  |
| 16.5 | Sources of key data                                   | National Institute for Occupational Safety (NIOSH)  |
|      |   | US 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;  |
| 16.6 | Information which has been added, deleted or revised. | December 2011. European Chemicals Agency  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.  |

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