SAFETY DATA SHEET
according to Regulation (EC) No. 453/2010
Dental Use

PermaQuick® Bond Resin

SECTION 1 : Identification of the substance/preparation and of the company/undertaking

1.1. Product identifier

Product code : PK/63400
Product name : PermaQuick® Bond Resin
Product description : Dental bonding resin

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Professional Dental Bonding Resin

1.3. Details of the supplier of the safety data sheet

Manufacturer
Ultradent Products, Inc.
505 W. Ultradent Drive (10200 South)
South Jordan, UT 84095

EC Responsible Person
Ultradent Products GmbH
Am Westhover Berg 30
51149 Cologne Germany
Email: infoDE@ultradent.com
Emergency Phone : +49(0)2203-35-92-0

1.4. Emergency telephone number

CHEMTREC (NORTH AMERICA) : (800) 424 - 9300
(INTERNATIONAL) : +1(703) 527 - 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation(EC) No 1272/2008 [CLP]

: The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Health
: Skin Irritation, Category 2
Eye Irritation, Category 2
Skin Sensitization, Category 1
Target Organ Toxicity (Single exposure), Category 3

2.2. Label elements

Classification according to Regulation(EC) No 1272/2008 [CLP]

Hazard pictogram(s) :

Exclamation mark

Signal Word : WARNING

Hazard statement(s) :
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
Precautionary statement(s)

**Prevention**
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P264: Wash hands thoroughly after handling.
- P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P271: Use only outdoors or in a well-ventilated area.

**Response**
- P305: IF IN EYES: Rinse cautiously with water for several minutes.
- P351: Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If skin irritation or rash occurs: Get medical advice/attention.
- P363: Wash contaminated clothing before reuse.
- P361: Take off immediately all contaminated clothing.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P361: Take off immediately all contaminated clothing.
- P338: Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

**Storage**
- P273: Avoid release to the environment.
- P405: Store locked up.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

### 2.3. Other hazards

Conclusion: The substance does not fulfill the PBT and vPvB criteria for screening assessment; there are no indications of P or B properties.

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

Not Applicable

### 3.2. Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS</th>
<th>EINECS No.</th>
<th>Wt.%</th>
<th>Classification according to Regulation(EC) No 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bis-GMA</td>
<td>1565-94-2</td>
<td>216-367-7</td>
<td>&lt; 20</td>
<td>H315; H317; H319</td>
</tr>
<tr>
<td>2-hydroxyethyl Methacrylate</td>
<td>868-77-9</td>
<td>212-782-2</td>
<td>&lt; 20</td>
<td>Eye Irr.,Cat. 2B; Skin Sens.,Cat. 1B; H317; H319</td>
</tr>
<tr>
<td>2-dimethylaminoethyl Methacrylate</td>
<td>2867-47-2</td>
<td>220-688-8</td>
<td>&lt; 5</td>
<td>Acute Tox. (O),Cat. 4; Skin Corr.,Cat. 1C; Flam. Liq.,Cat. 4; H302; H314; H227</td>
</tr>
<tr>
<td>Barium aluminosilicate glass powder</td>
<td>65997-17-3</td>
<td>NAP</td>
<td>&lt; 45</td>
<td>Skin Irr.,Cat. 2; Eye Irr.,Cat. 2B; STOT SE,Cat 3; H315; H319; H335</td>
</tr>
</tbody>
</table>

For full text of H-statements: see SECTION 16.
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SECTION 4: First aid measures

4.1. Description of first aid measures

Following eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Following skin: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Following ingestion: If swallowed rinse mouth out with water. Seek medical attention if you feel unwell.

Following inhalation: Remove to open air. In the event of breathing difficulties get medical advice/attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Eyes: Causes eye irritation.

Skin: May cause skin irritation and sensitization.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to physician: NAP

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Extinguishing media: Foam, Dry Chemical, Carbon Dioxide (CO₂)

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: None known.

5.3. Advice for firefighters

Fire fighting procedures: General: Evacuate all personnel; use protective equipment for fire-fighting. Use self-contained breathing apparatus when the product is involved in fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General procedures: Refer to Section 8 for Personal Protective Equipment.

6.2. Environmental precautions

Water spill: Do not allow to enter sewers or drains that may lead to waterways.

6.3. Methods and material for containment and cleaning up

Small Spill: Pick up wash liquid with additional absorbent and place in a disposable container.

Large Spill: Collect in tightly closed containers.

6.4. Reference to other sections

Reference to other sections: NAP
**PermaQuick® Bond Resin**

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
- **General procedures**: Avoid contact with eyes, skin and clothing.
- **Handling**: Use suitable protective equipment.
- **Storage**: See product labeling.

#### 7.2. Conditions for safe storage, including any incompatibilities
- **Shelf life**: See product labeling

#### 7.3. Specific end use(s)
- **Specific end use(s)**: Professional Dental Bonding Resin

### SECTION 8: Exposure controls / personal protection

#### 8.1. Control parameters
- **Control parameters**: None Required

#### 8.2. Exposure controls
- **Eye/face protection**: Wear eye protection.
- **Skin protection**: Wear suitable protective clothing and gloves.
- **Respiratory protection**: Use only in well-ventilated areas.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties
- **Physical state**: Medium viscosity solution
- **Appearance**: Opaque
- **Colour**: Pale Yellow
- **Odour**: Acrylic
- **pH**: NAP (non-aqueous)
- **Specific gravity**: 1.5 - 1.6

#### 9.2. Other information
- **Additional information**: No further relevant information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity
- **Reactivity**: Stable

#### 10.2. Chemical stability
- **Chemical stability**: Stable when stored and handled under recommended conditions.

#### 10.3. Possibility of hazardous reactions
- **Hazardous polymerization**: None

#### 10.4. Conditions to avoid
**SAFETY DATA SHEET**
across to Regulation (EC) No. 453/2010
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Conditions to avoid : Heat, flames, ignition sources, direct light.

10.5. Incompatible materials

Incompatible materials : Not Determined

10.6. Hazardous decomposition products

Hazardous decomposition products : None known.

**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Acute

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dermal LD_{50}</strong></td>
<td>&gt; 3000 mg/kg Rabbit/Rat</td>
<td>~80% of the mixture consists of components of unknown toxicity (Dermal)</td>
</tr>
<tr>
<td><strong>Oral LD_{50}</strong></td>
<td>&gt; 3200 mg/kg Rat</td>
<td>~75% of the mixture consists of components of unknown toxicity (Oral)</td>
</tr>
<tr>
<td><strong>Inhalation LC_{50}</strong></td>
<td>&gt; 7 mg/L/4H Rat/Guinea Pig Dust/Mist</td>
<td>~84% of the mixture consists of components of unknown toxicity (Inhalation). This substance is a viscous gel, therefore, chance of inhalation is extremely low.</td>
</tr>
</tbody>
</table>

Germ cell mutagenicity : The components in this product are not reported to produce mutagenic effects in humans.

Carcinogenicity : None of the components of this material are listed by IARC, NTP, or CA Prop 65 as carcinogens.

Reproductive toxicity : The components in this product are not reported to cause reproductive effects in humans.

Other information : Device is biocompatible when used as directed by dental professionals per ISO 10993-1.

**SECTION 12: Ecological information**

12.1. Toxicity

Aquatic toxicity (acute) : Do not allow to enter sewers or drains that may lead to waterways.

12.2. Persistence and degradability

Persistence and degradability : Not classified

12.3. Bioaccumulative potential

Bioaccumulative potential : Not classified

12.4. Mobility in soil

Mobility in soil : Not Available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : Conclusion: The substance does not fulfill the PBT and vPvB criteria for screening assessment; there are no indications of P or B properties.

12.6. Other adverse effects

Environmental data : No further relevant information available.
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**SECTION 13: Disposal considerations**

13.1. Waste treatment methods


**SECTION 14: Transport information**

14.1. UN number

| UN number                                      | NAP |

14.2. UN proper shipping name

| UN proper shipping name                           | Not Dangerous Goods |

14.3. Transport hazard class(es)

| Hazard classification                                      | NAP |

14.4. Packing group

| Packing group                                      | NAP |

14.5. Environmental hazards

| Marine pollutant #1                                 | NAP |

14.6. Special precautions for user

| ADR - road                                          | NAP |
| RID - rail                                          | NAP |
| IMDG - sea                                          | NAP |
| IATA - air                                          | NAP |

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

| Transport in bulk                                   | NAP |

**SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

| General information                                  | Substances of very high concern (SVHC) according to REACH, Article 57: Contains no SVHC substances. |
| General comments                                     | Please refer to Medical Devices Directive 93/42/EEC. |

15.2. Chemical safety assessment

| Chemical safety assessment                           | See Section 11 |
| Additional information                               | None of the ingredients are listed as a carcinogen by IARC, NTP, or CA Prop 65. This product is not considered dangerous for transportation. |

**SECTION 16: Other information**

| Relevant H-statements (number and full text)        | Acute Tox. (O), Cat. 4: Acute Toxicity (Oral), Category 4 |
|                                                    | Eye Irr., Cat. 2B: Eye Irritation, Category 2B |
|                                                    | Flam. Liq., Cat. 4: Flammable Liquids, Category 4 |
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STOT SE, Cat 3: Target Organ Toxicity (Single exposure), Category 3
Skin Corr., Cat. 1C: Skin Corrosion, Category 1C
Skin Irr., Cat. 2: Skin Irritation, Category 2
Skin Sens., Cat. 1B: Skin Sensitization, Category 1B
H227: Combustible liquid.
H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

Prepared by: Anu Kattoju

Revision summary: This SDS replaces the 06/08/2015 SDS. Revised:

Section 1: MSDS No.
Section 2: EMERGENCY OVERVIEW - IMMEDIATE CONCERNS 2.3.
Other hazards.
Section 4: EYES, INGESTION, INHALATION, NOTES TO PHYSICIAN, SIGNS AND SYMPTOMS OF OVEREXPOSURE (INHALATION).
Section 5: EXPLOSION HAZARDS, EXTINGUISHING MEDIA, FIRE EXPLOSION, FIRE FIGHTING EQUIPMENT, SENSITIVE TO STATIC DISCHARGE, SENSITIVITY TO IMPACT.
Section 6: GENERAL PROCEDURES.
Section 8: PERSONAL PROTECTIVE EQUIPMENT - RESPIRATORY.
Section 9: APPEARANCE, COLOR, COMMENTS, PERCENT VOLATILE, pH, PHYSICAL STATE, SPECIFIC GRAVITY.
Section 10: HAZARDOUS POLYMERIZATION.
Section 11: ACUTE (DERMAL LD₅₀ (rabbit), DERMAL LD₅₀ (rabbit), DERMAL LD₅₀ (rabbit), ORAL LD₅₀ (rat), INHALATION LC₅₀ (rat), ORAL LD₅₀ (rat), ORAL LD₅₀ (rat), INHALATION LC₅₀ (rat), INHALATION LC₅₀ (rat), ORAL LD₅₀ (rat) ACUTE, GENERAL COMMENTS, CARCINOGENICITY, GERM CELL MUTAGENICITY, REPRODUCTIVE TOXICITY.
Section 12: CHEMICAL FATE INFORMATION, DISTRIBUTION, ENVIRONMENTAL DATA, BIOACCUMULATION/ACCUMULATION, AQUATIC TOXICITY (ACUTE), AQUATIC TOXICITY (ACUTE) (48-HOUR EC₅₀, 96-HOUR EC₅₀), SECTION 12: Ecological information.
Section 14: ROAD AND RAIL (ADR/RID), VESSEL (IMO/IMDG) - MARINE POLLUTANT #1 ROAD AND RAIL (UK only) (CDG) - SPECIAL PROVISIONS SECTION 14: Transport information, UN number, Packing group, ADR - road, IMDG - sea, IATA - air.
Section 15: COMMENTS, GENERAL COMMENTS, RoHS.
Section 16: GENERAL STATEMENTS.

General statements:
NAP = Not Applicable
NE = Not Established
TLV = Threshold Limit Value
PEL = Permissible exposure limits
MAK = Maximum Workplace Concentration
STEL = Short-term exposure limit
STEV = Short-term exposure value
TWA = Time Weighted Average
PPE = Personal Protective Equipment

Manufacturer disclaimer:
FOR DENTAL USE ONLY: Use as directed. The information and recommendations are taken from sources (raw material SDS(s) and
manufacturer's knowledge) believed to be accurate; however, the manufacturer, makes no warranty with respect to the accuracy of the information or the suitability of the recommendation and assumes no liability to any user thereof. Each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.