

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Will-Ceram U/P Porcelain  
**Revision Date:** 01/30/2010  
**MSDS Number:** 964  
**CAS Number:** 12001-21-7  
**Product Code:** All: Margins, Stains, and other U/P porcelain powder  
**Product Use:** Dental restorations

**Provident Dental Products**  
500 Memorial Drive  
Somerset, NJ 08873 USA

For MSDS assistance:

Chemtrec: (800) 424-9300 (24 hours/7 days)

Chemtrec International: (202) 483-7616

Poison Control Center: If over-exposure occurs, call your poison control center at 1-800-222-1222 (24 hours/7 days)

For Emergencies, call 911 immediately (in the US).

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component
12001-21-7	Dental Porcelain

This material does not contain any forms of crystalline silica. In addition to silicon (Si) and oxygen (O), dental porcelains comprise the following chemical elements: Al, K, Na, Ca, and may also comprise Li, Mg, Ba, Ce, Ti, Zr, Sn, Y, B, F and Fe. All these elements are not present in their pure or individual oxide forms but rather chemically bonded together within insoluble alumo-silicate glass matrix. By convention the composition of dental porcelain, same as composition of many other glass-ceramic materials, is still reported on individual oxide basis. In that representation composition of dental porcelain may be given as about 50-80% of SiO<sub>2</sub>, about 5-15% of Al<sub>2</sub>O<sub>3</sub> and the balance comprised of chemical constituents listed above and below. Dental porcelain also contains small amounts of non-silica inclusions: pigments, opacifiers, opalescing and fluorescing agents, which are based on crystalline forms of TiO<sub>2</sub>, ZrO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, zirconium silicate (ZrSiO<sub>4</sub>) and yttrium silicate (Y<sub>2</sub>SiO<sub>5</sub>). In the fired state of dental porcelain these components are fused and completely encapsulated in chemically durable, insoluble glass matrix specifically designed and tested to resist wear and corrosion in oral environment.

OSHA Regulatory Status: This MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and made available for employees and other users of this product.

## 3 HAZARDS IDENTIFICATION

**Route of Entry:** Inhalation, Eye contact, Skin contact, Ingestion  
**Target Organs:** Lungs  
**Inhalation:** May irritate respiratory system.  
**Skin Contact:** May irritate skin.  
**Eye Contact:** Airborne dust may irritate eyes.  
**Ingestion:** May irritate digestive system.

## 4 FIRST AID MEASURES

- Inhalation:** Remove to fresh air.
- Skin Contact:** Rinse with soap and water.  
Consult a physician if irritation occurs.
- Eye Contact:** Flush with copious amounts of water for at least 15 minutes.  
Consult an ophthalmologist or medical attention if necessary.
- Ingestion:** Rinse out mouth and drink plenty of water. Seek medical attention.

## 5 FIRE FIGHTING MEASURES

- Non-flammable.  
Use the correct fire fighting measures for the surrounding area.

## 6 ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8. Isolate area to prevent unnecessary and unprotected personnel from coming in contact with powder. Powder should be vacuumed carefully as to not generate airborne dust.

## 7 HANDLING AND STORAGE

- Handling Precautions:** Do not inhale or ingest.
- Storage Requirements:** Keep container tightly closed when not in use.  
Store in original container.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** Mix, grind, and/or polish in a well ventilated area or an area with a proper exhaust fan.
- Protective Equipment:** Use NIOSH-approved safety glasses and dust mask.
- Exposure Guidelines/Other:** This product has not been evaluated as a whole.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

- |                        |                               |                              |               |
|------------------------|-------------------------------|------------------------------|---------------|
| <b>Appearance:</b>     | Fine powder in various colors | <b>Boiling Point:</b>        | Not available |
| <b>Physical State:</b> | Powder                        | <b>Freezing/Melting Pt.:</b> | Not available |
| <b>Odor:</b>           | odorless                      | <b>Solubility:</b>           | Not available |
| <b>pH:</b>             | Not available                 | <b>Spec Grav./Density:</b>   | Not available |
| <b>Vapor Pressure:</b> | Not available                 |                              |               |
| <b>Vapor Density:</b>  | Not available                 |                              |               |

**Bulk Density:** 2.3-2.5 g/cm<sup>3</sup>

**Fusion Point:** 1500-1850 deg F (816-1010 deg C)

**Glass Transition Temperature:** 840-1067 deg F (449-575 deg C)

## 10 STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Conditions to avoid:</b>	None known
<b>Materials to avoid (incompatibility):</b>	None known
<b>Hazardous Decomposition products:</b>	None known
<b>Hazardous Polymerization:</b>	None known

## 11 TOXICOLOGICAL INFORMATION

Not available

## 12 ECOLOGICAL INFORMATION

Not available

## 13 DISPOSAL CONSIDERATIONS

This information applies to the material as manufactured; processing, use, or contamination may make the information inappropriate, inaccurate, or incomplete.

Waste must be handled in accordance with all applicable regulations. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state, and local requirements.

## 14 TRANSPORT INFORMATION

Not available

## 15 REGULATORY INFORMATION

Not available

## 16 OTHER INFORMATION

The information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed in good faith and believed to be correct as of the date hereof. Provident Dental Products however, makes no representations as to the completeness or accuracy of this information and supplies it on the condition that the persons receiving same will make their own determinations as to its suitability for their purpose prior to use. In no event will Provident Dental Products be responsible for damages of any nature whatsoever resulting from the use of or reliance upon this information.

Rev# 1