Synspar Paste Opaque

According to the MSDS, Synspar Paste Opaque is a product used for dental restorations. It has a revision date of 03/14/14, and the MSDS number is 301. The product code is for all paste opaque shades.

The hazards identification section indicates that Synspar Paste Opaque can irritate the respiratory system upon inhalation, and may irritate skin and cause dermatitis. It may also irritate the eyes and digestive system upon ingestion.

The HMIS III system assigns a value of 1 for health, 0 for flammability, and 0 for physical hazards. This indicates that the product is safe to handle and does not pose a flammable risk.

For MSDS assistance, contact Ardent, Inc. at 175 Pineview Drive, Amherst, NY 14228. Technical services can be reached at (866) 751-8548 (9 AM - 5 PM EST). Emergency Call USA-Infotrac: (800) 535-5053 (24 hours/7 days) or Emergency Call Canada-Canutec: -1-(613) -996-6666 (24 hours/7 days).

General MSDS Assistance is available as follows:

- US: 1-800-922-5520
- Canada: 1-800-263-8182
3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>12001-21-7</td>
<td>Dental Porcelain</td>
<td>&gt;65%</td>
</tr>
<tr>
<td>56-81-5</td>
<td>Glycerine</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>107-88-0</td>
<td>Butanediol</td>
<td>&lt;25%</td>
</tr>
</tbody>
</table>

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 SiO2, about 5-15% of Al2O3 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 TiO2, ZrO2, Al2O3, zirconium silicate (ZrSiO4) and yttrium silicate (Y2SiO5). 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.

4 FIRST AID MEASURES

Inhalation: Remove to fresh air. Seek medical attention if necessary.

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 if necessary.

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 paste. Use absorbent material to pick up material.

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. Store at room temperature. Store away from heat, flame, and oxidizing agents.
EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use in a well ventilated area or an area with a proper exhaust fan.

Personal Protective Equip:
- HMIS PP, T | Dust Respirator
- HMIS PP, A | Safety Glasses
  Use NIOSH-approved safety glasses. In dusty atmospheres, use an approved dust respirator.
  Protective gloves are recommended.

Exposure Guidelines/Other: This product has not been evaluated as a whole.

PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Creamy, ivory/white paste with no odor
- Physical State: Paste
- Spec Grav./Density: 2.40 g/cm³
- Boiling Point: Not available
- Vapor Pressure: Not available
- pH: Not available
- Odor: Odorless
- Solubility: Insoluble
- Freezing/Melting Pt.: 1832 deg F (1000 deg C)
- Vapor Density: Not available

STABILITY AND REACTIVITY

- Stability: Stable
- Conditions to Avoid: None known
- Materials to Avoid: None known
- Hazardous Decomposition: None known
- Hazardous Polymerization: None known

TOXICOLOGICAL INFORMATION

Not available

ECOLOGICAL INFORMATION

Not available

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.
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. Ardent, Inc. 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 Ardent, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon this information.
1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Synspar Porcelain
Revision Date: 03/14/14
MSDS Number: 302
CAS Number: 12001-21-7
Product Use: Dental restorations

Product Codes: All: Body, Opaque, Opaceous, Incisal, Modifier, Gingival, Trans, Add-on, Margin, Special Effects, Blush, ITI

Pentron Ceramics
500 Memorial Drive
Somerset, NJ 08873

Technical Services: (800) 243-3100 or (203) 303-2010 (8 AM - 4 PM EST)

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. HAZARDS IDENTIFICATION

Route of Entry: Eyes contact, Inhalation, Skin contact, Indigestion
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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>12001-21-7</td>
<td>Dental Porcelain</td>
</tr>
</tbody>
</table>

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 alum-o-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 SiO2, about 5-15% of Al2O3 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 TiO2, ZrO2, Al2O3, zirconium silicate (ZrSiO4) and yttrium silicate (Y2SiO5). 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.

4 FIRST AID MEASURES

Inhalation: Remove to fresh air. Seek medical attention if needed.
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 if necessary.

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.
Personal Protective Equip: HMIS PP, A | Safety Glasses
HMIS PP, T | Dust Respirator
HMIS PP, W | Dust and Vapor Respirator
Use NIOSH-approved safety glasses and dust mask.

This product has not been evaluated as a whole.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Fine powder in various colors
Physical State: Powder
Odor: odorless
Bulk Density: 2.4-2.5 g/cm³
Fusion Point: 1720-1850 deg F (938-1010 deg C)
Glass Transition Temperature: 977-1067 deg F (525-575 deg C)

<table>
<thead>
<tr>
<th>Spec Grav./Density:</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not available</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Solubility: Not available
Freezing/Melting Pt.: Not available
Vapor Density: Not available

10 STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: None known
Materials to Avoid: None known
Hazardous Decomposition: None known
Hazardous Polymerization: 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. Pentron Ceramics 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 Pentron Ceramics be responsible for damages of any nature whatsoever resulting from the use of or reliance upon this information.

Rev# 4