1. Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>SDS Code Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYCAL® Radiopaque Calcium Hydroxide Composition</td>
<td>523899</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance Identity</th>
<th>Date of Last Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYCAL® Radiopaque Calcium Hydroxide Composition</td>
<td>02/21/14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer: DENTSPLY Caulk</th>
<th>Address</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Grades or Minor Variant Identities</th>
<th>Information Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Use (for Canada)</th>
<th>Emergency Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>(302) 422-4511 (8:00 AM – 4:30 PM Eastern Time)</td>
</tr>
</tbody>
</table>

2. Hazard(s) Identification

**WARNING**

**CAUSES SKIN IRRITATION**

Wash hands thoroughly after handling.

Wear protective gloves.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

3. Composition/Information on Ingredients - Base Paste

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>C.A.S. Number</th>
<th>Exposure Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Tungstate</td>
<td>7790-75-2</td>
<td>5 mg/M³</td>
<td>&lt; than 20</td>
</tr>
<tr>
<td>Zinc Oxide</td>
<td>1314-13-2</td>
<td>10 mg/M³</td>
<td>&lt; than 15</td>
</tr>
<tr>
<td>Disalicylate ester of 1,3 butylene glycol</td>
<td>73240-13-8</td>
<td>Not Established</td>
<td>&lt; than 50</td>
</tr>
</tbody>
</table>

Other Information: Colorants are synthetic inorganic iron oxides.

3. Composition/Information on Ingredients - Catalyst Paste

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>C.A.S. Number</th>
<th>Exposure Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Hydroxide</td>
<td>1305-62-0</td>
<td>5 mg/M³</td>
<td>&lt; than 55</td>
</tr>
<tr>
<td>Zinc Oxide</td>
<td>1314-13-2</td>
<td>10 mg/M³</td>
<td>&lt; than 15</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>10 mg/M³</td>
<td>&lt; than 10</td>
</tr>
</tbody>
</table>

3. Hazard Identification

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>Signs and Symptoms</th>
<th>Single, Repeated, or Lifetime Exposure</th>
<th>Severity (Mild, Moderate, Severe)</th>
<th>Acute and Chronic Health Effect(s)</th>
<th>Target Organ(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Material may cause irritation.</td>
<td>Single &amp; Repeated</td>
<td>Moderate</td>
<td>Irritation and possible corneal damage due to the caustic nature of ingredient used in the product.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin</td>
<td>Material may cause irritation.</td>
<td>Single &amp; Repeated</td>
<td>Mild</td>
<td>Irritation or possible allergic response.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Material may cause irritation.</td>
<td>Not Applicable</td>
<td>Mild</td>
<td>Irritation due to the caustic nature of ingredients used in the product.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Other</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Medical Conditions Aggravated by Exposure: Open sores and wounds of the skin.

Carcinogenicity:  NTP?: Not listed   IARC monographs?: Not listed   OSHA regulated?: No All components of this product are in compliance with the inventory listing Requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
**Potential Environmental Effects**: Do not allow to enter sewers/ surface or ground water.

**NFPA Hazard Classification Ratings (Scale 0-4)**: Health = 1, Fire = 0, Reactivity = 0

---

### 4. First Aid Measures

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>First Aid Instructions</th>
<th>Immediate Medical Attention</th>
<th>Delayed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye</strong></td>
<td>Rinse opened eye for several minutes under running water. If symptoms persist consult physician.</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Skin</strong></td>
<td>Immediately wash with soap and water and rinse thoroughly.</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Supply fresh air. If symptoms persist consult physician. This may not be of concern when using clinically relevant quantities.</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>Rinse out mouth and then drink plenty of water. Consult a physician immediately. This may not be of concern when using clinically relevant quantities.</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically.

---

### 5. Fire and Explosion Data

<table>
<thead>
<tr>
<th>Flashpoint Method</th>
<th>Flammable (Explosive) Limits in Air</th>
<th>Autoignition Temperature</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>LEL: Not Applicable UEL: Not Applicable</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Flame Propagation or Burning Rate (for Solids): Not Applicable

Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.

Protection and Procedures for Firefighters: Firefighters should wear self-contained respirator protective devices.

---

### 6. Accidental Release Measures

**Containment Techniques**: Material is a high viscosity paste, but will flow somewhat.

**Spill/Leak Clean-up Procedures and Equipment**: Absorb with liquid binding material (sand, vermiculite, diatomite, acid binders, universal binders or sawdust).

**Evacuation Procedures**: Not Applicable

**Special Instructions**: Not Applicable

**Reporting Requirements**: Not Applicable

---

### 7. Handling and Storage

**Handling Practices and Warnings**: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals.

**Storage Practices and Warnings**: Store only in the original package. Keep package tightly sealed. Store in a dry area. Store away from food and beverages.

---

### 8. Exposure Control / Personal Protection

<table>
<thead>
<tr>
<th>Individual Protection Measures</th>
<th>Personal Protective Equipment for Normal Use</th>
<th>Personal Protective Equipment for Emergencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye/Face</strong></td>
<td>Safety Glasses</td>
<td></td>
</tr>
<tr>
<td><strong>Skin</strong></td>
<td>The glove material has to be impermeable and resistant to the product.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Not Required. This may not be of concern when using clinically relevant quantities.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Body Protection</strong></td>
<td>Protective work clothing</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Occupational Exposure Limits**: Not Applicable

**Engineering Controls**: Not Applicable

---

### 9. Physical and Chemical Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Base-light yellow colored paste, catalyst-white paste.</td>
</tr>
<tr>
<td>Odor</td>
<td>Base odor of cloves, Catalyst Odorless.</td>
</tr>
<tr>
<td>Normal Physical State</td>
<td>Paste</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Base 2.0 g/cm³ Catalyst 1.8 g/cm³</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not soluble</td>
</tr>
<tr>
<td>pH</td>
<td>Base-Not Applicable, Catalyst- 11.5</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Density (AIR=1):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate =1):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flashpoint - Method</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits in Air LEL:</td>
<td>Not Applicable UEL: Not Applicable</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**Other**: Not Applicable

---

### 10. Stability and Reactivity Data

- **Incompatibility (Materials to Avoid)**: Not Applicable
- **Hazardous Products Produced During Decomposition**: Not Applicable
- **Hazardous Polymerization**: May Occur
- **Conditions to Avoid**: None known
- **Stability**: Stable

---

### 11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data:
### Emergency Overview

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>Signs and Symptoms</th>
<th>Single, Repeated, or Lifetime Exposure</th>
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Medical Conditions Aggravated by Exposure: Open sores and wounds of the skin.

Carcinogenicity: NTP?: Not listed  IARC monographs?: Not listed  OSHA regulated?: No

All components of this product are in compliance with the inventory listing Requirements of the U. S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects: Potential Environmental Effects Do not allow to enter sewers/surface or ground water.

NFPA Hazard Classification Ratings (Scale 0-4): Health = 1, Fire = 0, Reactivity = 0

### 12. Ecological Information

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water streams or sewage system. Toxic to fish. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

### 13. Disposal Considerations

Regulations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations

Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

### 14. Transport Information

<table>
<thead>
<tr>
<th>Regulated for Shipping: No, Not Regulated</th>
<th>DOT Shipping Name: Not Regulated</th>
<th>Packing Group: Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Changes in Quantities, packaging, or shipment method change product classification? No</td>
<td>DOT Hazard Class: Not Applicable</td>
<td>UN Number: Not Applicable</td>
</tr>
</tbody>
</table>

### 15. Regulatory Information

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations.

U.S. Federal Regulations: CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. State Regulations California Proposition 65: This product does not contain any chemicals, which are on the California Proposition 65 list.

International Regulations: Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

European Community Labeling: Not a dangerous preparation. These R and S phrases apply to base and catalyst: R36/38 Irritating to eyes and skin. R51/53 Toxic to aquatic organisms, may cause long-term effects in the environment. S26 Incase of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of water. S37 Wear suitable gloves. S57 Use appropriate container to avoid environmental contamination. S60 This material and its container must be disposed of as hazardous waste. These R and S phrases apply to catalyst: R41 Risk of serious damage to eyes. R50/53 Very toxic to aquatic organisms, may cause long-term effects in the environment. S24 Avoid contact with skin.

European Inventory of New and Existing Chemicals Substances (EINECS): This product is a medical device and not subject to chemical notification requirements.

Other: Not Applicable

### 16. Other Information

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex.

All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.