**SECTION 1: IDENTIFICATION**

Trade Name: Dentsply Ceramco

Chemical Name: Noble Metal Alloy

(Silver & Tin & Indium)

Date of Preparation: 1/31/02

**Manufacturer:** Dentsply Ceramco

Six Terri Lane

Burlington, New Jersey 08016

Emergency Phone Number: 1-800-487-0100

Fax: (609)386-1997

**SECTION 2: HAZARDOUS COMPONENTS**

This section covers the chemical ingredients contained in the product which are considered hazardous as defined by OSHA 1910.1200, the Canadian WHMIS Act, the EC Directives or certain state regulations.

**Tradenames and composition of the hazardous ingredients are listed in Section 2(a).**

**Component** | **CAS#** | **Exposure Limits**
--- | --- | ---
Silver | 7440-22-4 | 0.01 mg/m³ PEL-TWA
Tin | 7440-31-5 | 2 mg/m³ PEL-TWA
Indium | 7440-74-6 | 0.1 mg/m³ TLV-TWA

**Section 2(a): Trade Names and Nominal Composition (Wt%) of Hazardous Components**

<table>
<thead>
<tr>
<th>Product</th>
<th>%Ag</th>
<th>%Sn</th>
<th>%In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degubond 60</td>
<td>28.0</td>
<td>3.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Ceramco White</td>
<td>14.4</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Special White</td>
<td>6.5</td>
<td>3.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**SECTION 3: HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**

Inhalation of fumes from melting this product may cause moderate to severe respiratory and eye irritation. Prolonged overexposure may cause permanent discolouration of the skin and eyes and lung disease.

**Potential Health Effects:**

- **Eye:** May cause irritation. Metal particles may injure eye.
- **Skin:** Molten metal may cause severe thermal burns. Localized argyria (silver discoloration) may occur if silver particles become implanted in the skin during handling.
- **Inhalation:** Inhalation of silver fumes may cause mild respiratory irritation. Inhalation of fumes may cause moderate to severe lung irritation and pulmonary edema.
- **Ingestion:** This material is not known to cause acute toxicity. These metals are poorly absorbed through the intestinal tract.

**Chronic Hazards:** Prolonged absorption of silver may result in a permanent gray discoloration of the skin and eyes called argyria. Prolonged overexposure to tin dust or fumes may cause a benign pneumococcius called stannosis which produces lung changes but no fibrosis or disability. Prolonged overexposure to indium has been found to cause weight loss, lung injury, blood damage and degenerative changes in the liver and kidney in laboratory animals.

**Carcinogens:** None of the components are listed as a carcinogen by OSHA, IARC or NTP.

**Medical Conditions Aggravated by Exposure:** Pre-existing lung disease.

**SECTION 4: FIRST AID MEASURES**

**Eye:** Rinse thoroughly with water, holding the eye lids open to be sure the material is washed out. Get medical attention if irritation persists.

**Skin:** Wash thoroughly with soap and water. Get medical attention if irritation or symptoms of exposure develop.

**Inhalation:** If overexposed to dust or fumes, remove victim to fresh air. Get prompt medical attention.

**Ingestion:** If dust is swallowed, get prompt medical attention.

**SECTION 5: FIRE AND EXPLOSION DATA**

**Flash Point:** Not applicable

**Flammable Limits:** Not determined

**Extinguishing Media:** This material is not combustible in solid form. As a dust this material presents a moderate fire and explosion hazard. Use dry chemical, CO₂, or Class D extinguishers. Do not use water or metal fires. Special Fire Fighting Procedures: Wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing. Unusual Fire Hazards: Finely divided dust may ignite and burn rapidly and may present an explosion hazard under dust conditions.

**Hazardous Decomposition Products:** Oxides of silver, tin and indium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Spill:** Pick up solid material or sweep dust using duston-proof and non-sparking equipment. Molten metals should be allowed to solidify before clean-up. Notify authorities of spills and releases as required.

**Handling:** Avoid breathing metal fumes and use with adequate ventilation. Avoid allowing dust to contact eyes, skin or clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area.

**Storage:** Store in a cool, dry location away from incompatible materials.

**SECTION 7: HANDLING AND STORAGE**

**Ventilation:** Use locally exhaust when generating dust or fume to maintain the concentration of air contaminants below the exposure limits.

**Respiratory Protection:** If needed, a NIOSH/MSHA approved respirator with high efficiency particulate filters may be used. For higher exposures (greater than 10 times the exposure limit) a supplied air respirator may be required. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI 288.2 and good Industrial Hygiene practice.

**Skin Protection:** Wear protective gloves if needed to prevent burns and injuries.

**Eye Protection:** Wear eye protection consistent with industrial safety practice for the process being performed.

**Other Protective Equipment:** None required for normal use.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Appearance and Odor:** Metal products are solids metal shaped as wire, plate, strip or in finished forms such as ingots or nuggets for dental use.

**pH:** N/A

**Boiling Point:** Not determined

**Melting Point:** Above 600°C

**Vapor Pressure:** Not applicable

**Water Solubility:** Insoluble

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Hazard Category:** None

**Incompatibility/Conditions to Avoid:** Acetylene, hydrogen peroxide, halogen, sulfur, strong oxidizers.

**Hazardous Decomposition Products:** Oxides of silver, tin and indium are emitted when this material is heated above the melting point.

**Hazardous Polymerization:** Will Occur: Will not occur: X

**SECTION 10: STABILITY AND REACTIVITY**

**Stability:** Stable X Unstable

**Decomposition Products:** Oxides of silver, tin and indium.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Toxicity Data Available:** None.

**Toxicological Properties:** None.

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecological Data Available:** None.

**ECOLOGICAL INFORMATION**

**SECTION 13: DISPOSAL INFORMATION**

**Disposal:** Dispose in accordance with all local, state and federal regulations. This material is a hazardous waste under EPA hazardous waste regulations because of extractable silver. Waste mixtures should be tested as appropriate to determine the waste classification. Metals should be reclaimed using standard industrial practices such as remelting and refining. Degussa-Ney Dental Incorporated offers a refining service.

**SECTION 14: TRANSPORT INFORMATION**

**DOT Hazard Classification:** Not Regulated.

**International Regulations:**

**SARA TITLE III:** Hazard Category for Section 311/312: Acute Health, Chronic Health Section 313 Toxic Chemicals: These products contain the following chemicals subject to SARA Title III Section 313 Reporting requirements. Silver (See Section 2(a) for amount present)

**Section 302 Extremely Hazardous Substances (TSCA):** None.

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of these products are listed on the TSCA inventory.

**Canadian WHMIS Classification:** Class D, Division 2, Subdivision B

**Australian Inventory of Chemical Substances:** Japan: All of the components of these products are listed on the EINECS inventory.

**International Regulations:**

**European Community Labeling Classification:** N/A

**European Community Risk and Safety Phrases:** N/A

**Australia:** All of the components of these products are listed on the Australian Inventory of Chemical Substances.

**Japan:** All of the components of these products are listed on the Japanese Existing and New Chemical Substances (MITI) list.

**STATE REGULATIONS:** California Proposition 65: These products contain the following substances known to the State of California to cause cancer and/or reproductive harm:

**SECTION 15: REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** 1000 lbs silver.

**SARA TITLE III:** Hazard Category for Section 311/312: Acute Health, Chronic Health Section 313 Toxic Chemicals: These products contain the following chemicals subject to SARA Title III Section 313 Reporting requirements. Silver (See Section 2(a) for amount present)

**Section 302 Extremely Hazardous Substances (TSCA):** None.

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of these products are listed on the TSCA inventory.

**Canadian WHMIS Classification:** Class D, Division 2, Subdivision B

**Australian Inventory of Chemical Substances:** Japan: All of the components of these products are listed on the EINECS inventory.

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**STATE REGULATIONS:** California Proposition 65: These products contain the following substances known to the State of California to cause cancer and/or reproductive harm:

**SECTION 16: OTHER INFORMATION**

This information is supplied in good faith and is applicable to the product as shipped. Your application of the product may change its characteristics. All data are subject to reasonable variation. The information and recommendations set forth herein are taken from sources believed to be accurate and reliable. There is no implied warranty with respect to the accuracy of the information or the suitability of the recommendations. This information is offered solely for use in your evaluation of this product in respect to safety, health and environmental hazards.
This information is supplied in good faith and is applicable to the product as shipped. Your application of the product may change its characteristics. All data are subject to reasonable variation. The information and recommendations set forth herein are taken from sources believed to be accurate and reliable. There is no implied warranty with respect to the accuracy of the information or the suitability of the recommendations. This information is offered solely for use in your evaluation of this product in respect to safety, health and environmental hazards.