MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: NUPRO® NUSolutions™ Prophylaxis Paste With Novamin® and Fluoride
Product Number: 80150001, 80150101, 80150201, 80150301, 80150401, 80150501, 80150601, and 80150701
MSDS Code Number: 801361

Manufacturer: DENTSPLY Professional
Address: 1301 Smile Way
York, PA 17404
Information Telephone Number: 1-800-989-8826 or 717-767-8502
Emergency Telephone Number: 800-424-9300 Chemtrec
Email: ProfessionalMSDS@dentsply.com

Product Use: As part of cleaning and polishing procedures of a professionally administered dental prophylaxis treatment. Secondarily, the product can be used for the immediate relief of tooth sensitivity, post-scaling and root planning.

Date of Last Revision: August 22, 2008

SECTION 2 HAZARDS IDENTIFICATION

Emergency Overview: Direct contact may cause eye irritation. Prolonged skin contact may cause irritation. May be harmful if swallowed. Contains crystalline silica. Prolonged overexposure to respirable crystalline silica may cause lung disease (silicosis) and increase the risk of lung cancer. The crystalline silica in this product is encapsulated in a viscous liquid. Under normal conditions of use, exposure is not expected to occur.


SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No./EINECS No.</th>
<th>Percent</th>
<th>EC Substance Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5 / 200-289-5</td>
<td>30-50</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Pumice</td>
<td>1332-09-8</td>
<td>20-40</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Calcium Sodium phosphosilicate (Novamin®)</td>
<td>65997-18-4 or 359684-27-8</td>
<td>12-18</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>1344-09-8 / 215-687-4</td>
<td>3-7</td>
<td>Xi R36/37/38</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>2-6</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Sodium Fluoride</td>
<td>7681-49-4 / 231-667-8</td>
<td>1-5</td>
<td>T R25, R32, R36/38</td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)</td>
<td>14808-60-7 / 238-878-4</td>
<td>&lt;1%</td>
<td>Xn R48/20</td>
</tr>
</tbody>
</table>

See Section 15 for further information on EU Classification.

SECTION 4 FIRST AID MEASURES
Eye Contact: Flush eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin Contact: Wash skin with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops. Launder clothing before re-use.

Ingestion: Do not induce vomiting. If conscious, rinse mouth out and give 8 ounces of water to dilute. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

Inhalation: Move victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. Get medical attention if irritation persists.

SECTION 5  FIRE FIGHTING PROCEDURES

Extinguishing Media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

Firefighting Procedures: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

Unusual Fire/Explosion Hazards: None known.

Known or Anticipated Hazardous Products of Combustion: Carbon monoxide, carbon dioxide and acrolein.

SECTION 6  ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Wear appropriate protective clothing as described in Section 8. Wipe up or collect using an inert absorbent material and place in appropriate containers for disposal. Rinse spill area with water. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

Personal Precautions: Avoid contact with eyes and prolonged skin contact.

Environmental Precautions: None needed.

SECTION 7  HANDLING AND STORAGE

Handling: Avoid contact with the eyes and prolonged skin contact. Wear protective clothing and equipment as described in Section 8. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues that can be hazardous. Follow all MSDS precautions when handling empty containers.

Storage: Store in a cool, dry, well ventilated area.

SECTION 8  EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>5 mg/m³ TWA PEL (respirable fraction) 10 mg/m³ TWA TLV</td>
</tr>
<tr>
<td>Pumice</td>
<td>None Established</td>
</tr>
<tr>
<td>Calcium Sodium phosphosilicate (Novamin®)</td>
<td>None Established</td>
</tr>
<tr>
<td>Sodium Silicates</td>
<td>None Established</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>15 mg/m³ TWA PEL (total dust) 10 mg/m³ TWA TLV 1.5 mg/m³ (respirable dust) DFG MAK 10 mg/m³ (inhalable); 4 mg/m³ (respirable dust) TWA UK WEL</td>
</tr>
<tr>
<td>Sodium Fluoride (as Fluoride)</td>
<td>2.5 mg/m³ ACGIH TLV TWA 2.5 mg/m³ OSHA PEL TWA</td>
</tr>
</tbody>
</table>
Engineering Controls: No special ventilation normally required. For bulk handling, use ventilation that is adequate to maintain exposure levels below the occupational exposure limits.

Personal Protective Equipment:
Eye Protection: None required for normal use. Safety glasses recommended for bulk handling.
Skin Protection: None required from normal use. Wear impervious gloves such as natural rubber if needed to for bulk handling.
Respiratory Protection: None should be needed for normal use. If the exposure limits are exceeded an approved respirator with particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.
Other Protective Clothing or Equipment: None needed for normal use. Impervious clothing as needed to avoid contamination of personal clothing for bulk handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Abrasive dispersion of pumice in a viscous solution in various colors and flavors.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Slightly soluble</td>
</tr>
<tr>
<td>pH</td>
<td>9.5-10.5</td>
</tr>
<tr>
<td>Vapor Pressure (mmHg)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>% Volatile by Volume</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>Flammable Limits in Air</td>
<td>LEL: N/A</td>
</tr>
<tr>
<td></td>
<td>UEL: N/A</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable.
Conditions to Avoid (stability): None known.
Incompatibility with Other Materials: Avoid oxidizing agents and acids.
Hazardous Decomposition Products: May product carbon monoxide, carbon dioxide and acrolein. Contact with acids may form hydrogen fluoride.
Hazardous Polymerization: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:
Eyes: Direct contact may cause irritation with redness and tearing. Injury may occur from mechanical irritation.
Skin: Prolonged skin contact may cause irritation.
Inhalation: No adverse effects expected.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation, headache, nausea and diarrhea.
Chronic Health Effects: Repeated excessive levels of glycerin have been shown to cause kidney, liver and gastrointestinal effects in studies with laboratory animals. Prolonged overexposure to sodium fluoride may cause cardiac disorders and cause damage to the kidney and brain. This product contains a trace amount of crystalline silica. Repeated inhalation of respirable crystalline silica dust may cause a progressive,
disabling and sometimes fatal lung disease called silicosis. The crystalline silica in this product is encapsulated in a viscous liquid. Under normal conditions of use, exposure is not expected to occur.

**Carcinogenicity:** Crystalline silica quartz is listed as “Carcinogenic to Humans” (Group 1) by IARC and “Known to be a Human Carcinogen” by NTP. None of the other components of this product are listed as carcinogens by OSHA, IARC, NTP or the EU directive.

**Mutagenicity:** No data available.

**Medical Conditions Aggravated by Exposure:** Individuals with pre-existing eye or skin disease may be at increased risk from exposure.

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**Toxicological Data:**

- **Glycerin:** Oral Rat LD50: 17,000-27,200 mg/kg
  Skin Rabbit LD50: >10,000 mg/kg
  Inhalation rat LC50: >4 mg/L/6hrs
- **Pumice:** No data available
- **Calcium Sodium phosphosilicate (Novamin®):** No data available
- **Sodium Silicate:** Oral Rabbit LD50: 12,600 mg/kg
  Inhalation Rat LC50: >570 mg/m3/1 hour
  Skin Rabbit LD50: >10 gm/kg
- **Titanium Dioxide:** No data available
- **Sodium Fluoride:** Oral Rat LD50: 18 mg/kg
- **Crystalline Silica Quartz:** Oral Rat LD50: >22,500 mg/kg.

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**SECTION 12 ECOLOGICAL INFORMATION**

- **Glycerin:** 96 hr LC50 fathead minnow: 44,000 mg/L
  96 hr LC50 goldfish: >5,000 mg/L
- **Pumice:** No data available
- **Calcium Sodium phosphosilicate (Novamin®):** No data available
- **Sodium Silicate:** No data available
- **Titanium Dioxide:** No data available
- **Sodium Fluoride:** LC50/96-hour fish: >100 mg/kg
- **Crystalline Silica Quartz:** 72 hr LC50 carp: >10,000 mg/L

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**SECTION 13 DISPOSAL CONSIDERATIONS**

Dispose in accordance with national and local regulations.

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**SECTION 14 TRANSPORT INFORMATION**

- **DOT Shipping Name:** Not Regulated
- **DOT Hazard Class:** N/A
- **UN Number:** N/a
- **DOT Labels Required (49CFR172.101):** N/A

- **IATA Shipping Name:** Not Regulated
- **IATA Hazard Class:** N/A
- **UN Number:** N/A
- **IATA Hazard Labels Required:** N/A
**IMDG Shipping Name:** Not Regulated  
**IMDG Class:** N/A  
**UN Number:** N/A  
**IMDG Label:** N/A

### SECTION 15 REGULATORY INFORMATION

**U.S. FEDERAL REGULATIONS:**

**CERCLA 103 Reportable Quantity:** Not regulated under CERCLA. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA TITLE III:**

**Hazard Category For Section 311/312:** Acute Health, Chronic Health  
**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:** This product is a medical device and not subject to chemical notification requirements.

**U.S. STATE REGULATIONS**

**California Proposition 65:** This product contains the following substances known to the state of California to cause cancer and/or reproductive toxicity: Crystalline Silica (Quartz): <1%

**INTERNATIONAL REGULATIONS:**

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

**Canadian WHMIS Classification:** Medical devices are not subject to WHMIS.

**European Community Labeling:** None required

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

**Australian Inventory of Chemical Substances:** This product is a medical device and not subject to chemical notification requirements.

**China Inventory of Existing Chemicals and Chemical Substances:** This product is a medical device and not subject to chemical notification requirements.

**Japanese Existing and New Chemical Substances:** This product is a medical device and not subject to chemical notification requirements.

**Korean Existing Chemicals List:** This product is a medical device and not subject to chemical notification requirements.

**Philippine Inventory of Chemicals and Chemical Substances:** This product is a medical device and not subject to chemical notification requirements.
SECTION 16 OTHER INFORMATION

HMIS Hazard Rating:
Health – 0*  Fire Hazard – 0  Reactivity – 0
* chronic health effect

Revision Date: 7/25/08  Supersedes: Form No. 538744001 Rev. F 03/04