CALCIUM HYDROXYAPATITE SAFETY DATA SHEET (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Calcium Hydroxyapatite

Synonyms: Calcium Hydroxylapatite
Pentacalcium Hydroxide tris (orthophosphate)

Information: Calcium Hydroxyapatite is a synthetically produced calcium phosphate mineral that is a pure form of natural bone, dentin, and enamel found in the human body. It is a white to off-white crystalline powder.

Manufacturer: Merz North America, Inc.
Address: Northchase 1 Building
6501 Six Forks Road
Raleigh, NC 27615

Phone No.: 888-972-4588

Hazmat Service Emergency Number: 800-373-7542

International Shipments: +1-484-951-2432

2. HAZARD(S) IDENTIFICATION

This product is not considered to be hazardous per the Occupational Safety & Health Administration's (OSHA's) Hazard Communication Standard 29CFR1910.1200:

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentacalcium hydroxide tris (orthophosphate)</td>
<td>12167-74-7</td>
</tr>
</tbody>
</table>

4. FIRST – AID MEASURES

Inhalation: Move to fresh air; consult a physician.
Oral Exposure: If swallowed, wash out mouth with water if conscious; consult a physician.
Skin Contact: Wash affected skin thoroughly with soap and water.
Eye Contact: Flush with copious amounts of water for at least 15 minutes; consult a physician.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water, Dry Chemical, Carbon Dioxide, or Appropriate Foam

Fire Fighting Protective Equipment: As in any fire, wear self-contained breathing apparatus (SCBA) pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Specific Hazards: May emit hazardous fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment; avoid breathing dust.

Method for cleaning up: Use broom, shovel, or equivalent and minimize dust formation; store in closed container prior to disposal.
7. **HANDLING AND STORAGE**

Handle in accordance with good industrial hygiene and safety practices; keep container closed unless in use and avoid dust formation as much as possible.

Store product in dry, well-ventilated area.

8. **EXPOSURE CONTROL / PERSONAL PROTECTION**

Personal protective equipment: Nitrile gloves or equivalent; long sleeves and pants to minimize exposed skin; safety glasses or goggles; National Institute for Occupational Safety and Health (NIOSH) approved particulate respirator or equivalent for nuisance dust – N95 or greater protection.

Wash hands and any exposed skin after handling.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White solid or powder</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH (Value)</td>
<td>7.2 – 8.0</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&gt;1,250 °C (2,282 °F)</td>
</tr>
<tr>
<td>Initial Boiling Point and Boiling Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion Severity</td>
<td>(Kst) Value = 0 bar.m/s</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>3.14 g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-Ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. **STABILITY AND REACTIVITY**

Reactivity: No data available

Chemical Stability: Stable under recommended storage conditions

Conditions to Avoid: No data available

Incompatible Materials: Strong acids and strong oxidizers

Hazardous Decomposition Products: No data available

11. **TOXICOLOGICAL INFORMATION**

Health effects are not known or expected during normal use.

12. **ECOLOGICAL INFORMATION**

Ecological data is not available.

13. **DISPOSAL CONSIDERATIONS**

Dispose of this product according to all local, state, and federal regulations.

14. **TRANSPORT INFORMATION**

Non-hazardous for transport.
15. REGULATORY INFORMATION

This material is not listed on the Toxic Substances Control Act (TSCA) inventory but is exempt when included in a drug, cosmetic, or device regulated by the Food and Drug Administration (FDA).

Superfund Amendments and Reauthorization Act (SARA) 302, 313 Listed: No
SARA 311/312: Acute Health Hazard

Resource Conservation and Recovery Act (RCRA) Hazardous Waste: No

16. OTHER INFORMATION

Revision Date: 25 APR 2015
Revision: 02

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