Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
DENTSPLY ZIRCATE PROPHY PASTE

PRODUCT USE
Cleaning and polishing for dental use.

SUPPLIER
Company: DENTSPLY (AUSTRALIA) PTY LTD
Address:
11-21 Gilby Road
Mount Waverley
VIC 3149
AUSTRALIA
Telephone: 1300 55 29 29
Emergency Tel: 1300 55 29 29 (Hours of operation: Monday - Friday 9:00 am - 5:00 pm EST; General information only)
Fax: +61 3 9538 8260

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE
None

RISK
None under normal operating conditions.

SAFETY
■ Do not breathe dust.
■ Avoid contact with skin.
■ Wear eye/face protection.
■ Use only in well ventilated areas.
■ In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>zincium silicate</td>
<td>14940-68-2</td>
<td>&lt;75</td>
</tr>
<tr>
<td>stannic oxide</td>
<td>18282-10-5</td>
<td>&lt;10</td>
</tr>
<tr>
<td>sodium saccharin</td>
<td>128-44-9</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
■ - For advice, contact a Poisons Information Centre or a doctor at once.
■ - Urgent hospital treatment is likely to be needed.

EYE
■ - If in eyes, hold eyelids apart and flush the eye continuously with running water.
■ - Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

SKIN
■ - If skin contact occurs:
■ - Remove all contaminated clothing, including footwear
■ - Remove adhering sticky material using a waterless hand cleaner.

INHALED
■ - If fumes or combustion products are inhaled remove from contaminated area.
■ - Other measures are usually unnecessary.

continued...
NOTES TO PHYSICIAN
■ Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
■ - There is no restriction on the type of extinguisher which may be used.
  - Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
■ - Alert Fire Brigade and tell them location and nature of hazard.
  - Wear breathing apparatus plus protective gloves for fire only.

FIRE EXPLOSION HAZARD
■ - Non combustible.
  - Not considered a significant fire risk, however containers may burn.
  Decomposition may produce toxic fumes of: carbon dioxide (CO2), nitrogen oxides (NOx), sulfur oxides (SOx), metal oxides, other pyrolysis products typical of burning organic material.
  May emit poisonous fumes.
  May emit corrosive fumes.

FIRE INCOMPATIBILITY
■ - Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: None

PERSONAL PROTECTION
Glasses:
Gloves:
Respirator:

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
■ - Clean up all spills immediately.
  - Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.

MAJOR SPILLS
■ - Clear area of personnel and move upwind.
  - Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
■ - Avoid all personal contact, including inhalation.
  - Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER
■ - Polyethylene or polypropylene container.
  - Packing as recommended by manufacturer.

STORAGE INCOMPATIBILITY
■ - Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS
■ - Store in original containers.
  - Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>EXPOSURE CONTROLS</th>
<th>Material</th>
<th>TWA mg/m³</th>
<th>STEL mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
<td>zirconium silicate (Zirconium compounds (as Zr))</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Australia Exposure Standards</td>
<td>zirconium silicate (Zirconium)</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>
Source Material TWA mg/m³ STEL mg/m³

Australia Exposure Standards compounds (as Zn) stannic oxide (Tin, oxide & inorganic compounds, except SnH₄ (as Sn)) 2

The following materials had no OELs on our records

• sodium saccharin: CAS:128- 44- 9 CAS:6155- 57- 3

PERSONAL PROTECTION

EYE

- Safety glasses with side shields
- Chemical goggles.

HANDS/FEET

- Wear general protective gloves, eg. light weight rubber gloves.

OTHER

- Overalls.
- P.V.C. apron.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

- General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

APPEARANCE

Light grey paste with a spearmint odour; does not mix with water.

PHYSICAL PROPERTIES

Does not mix with water.
Sinks in water.

Molecular Weight: Not Applicable
Specific Gravity (water=1): 2.5
PH (1% solution): Not Available
Evaporation Rate: Not Applicable
Lower Explosive Limit (%): Not Applicable
Decomposition Temp (°C): Not Available
Boiling Range (°C): Not Available
Solubility in water (g/L): Immiscible
Vapour Pressure (kPa): Not Available
Relative Vapour Density (air=1): Not Applicable
Upper Explosive Limit (%): Not Applicable
State: Free- flowing Paste
Melting Range (°C): Not Available
pH (as supplied): Not Available
Volatile Component (%vol): Not Available
Flash Point (°C): Not Applicable
Autoignition Temp (°C): Not Applicable
Viscosity: Not Available

CONDITIONS CONTRIBUTING TO INSTABILITY

- Elevated temperatures.
- Presence of open flame.
For incompatible materials - refer to Section 7 - Handling and Storage.

ZIRCONIUM SILICATE:

continued...
section 11 - toxicological information

- OSHA concluded that the recommended TLV-TWA and STEL would protect workers from any significant risk of pulmonary effects. NIOSH conclude that a separate limit should be considered for zirconium tetrachloride (because of the irritancy of hydrogen chloride derived from hydrolysis).

- The concentration of dust, for application of respirable dust limits, is to be determined from the fraction that penetrates a separator whose size collection efficiency is described by a cumulative log-normal function with a median aerodynamic diameter of 4.0 um (+-) 0.3 um and with a geometric standard deviation of 1.5 um (+-) 0.1 um, i.e., generally less than 5 um.

- Zircon sands may contain trace amounts (106-120 picoCurie per gram or 3.9-4.44 Bq/g) of naturally occurring radioactive uranium and thorium. However, measurements made by US DuPont during the use of similar mineral sands indicated that by observing OSHA Permitted Exposure Limit (PEL) for respirable quartz dust, i.e. 0.05 mg/m³ ensured the user is below the permitted limits [radioactive dose annual intake] established for uranium and thorium. [North American Refractories Co.]

- Section 12 - ecological information

- Section 13 - disposal considerations

- Section 14 - transportation information
Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS
Regulations for ingredients

zirconium silicate (CAS: 14940-68-2, 10101-52-7) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)"; "OECD Representative List of High Production Volume (HPV) Chemicals"

stannic oxide (CAS: 18282-10-5) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)"

sodium saccharin (CAS: 128-44-9, 6155-57-3) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)"; "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Dentsply Zircate Prophy Paste (CW: 4620-68)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS
Ingredient Name | CAS
--- | ---
zirconium silicate | 14940-68-2, 10101-52-7
sodium saccharin | 128-44-9, 6155-57-3

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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This is the end of the MSDS.