Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
DENTSPLY ORTHODONTIC RESIN POWDER

PRODUCT 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
NON-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.
■ 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>dibenzoyl peroxide</td>
<td>94-36-0</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
■ - Immediately give a glass of water.
■ - First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE
■ - If this product comes in contact with the eyes:
■ - Wash out immediately with fresh running water.
■ - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

SKIN
■ - If skin contact occurs:
■ - Immediately remove all contaminated clothing, including footwear.
■ - Flush skin and hair with running water (and soap if available).

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

NOTES TO PHYSICIAN
■ - Treat symptomatically.
Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
- Foam.
- Dry chemical powder.

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

FIRE/EXPLOSION HAZARD
- Combustible solid which burns but propagates flame with difficulty.
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited; once initiated larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
- Combustion products include: carbon dioxide (CO2), 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:
Chemical goggles.

Gloves:
PVC chemical resistant type.

Respirator:
Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
- Slippery when spilt.
- Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.

MAJOR SPILLS
- Slippery when spilt.
- Moderate hazard.
- CAUTION: Advise personnel in area.
- Alert Emergency Services 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.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
- Avoid reaction with oxidising agents.
- Aqueous polycarboxylic acid.

STORAGE REQUIREMENTS
- Store in original containers.
- Keep containers securely sealed.
- Store below 50 deg Celcius

continued...
Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

<table>
<thead>
<tr>
<th>Source</th>
<th>Material</th>
<th>TWA mg/m³</th>
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</thead>
<tbody>
<tr>
<td>Australia Exposure Standards</td>
<td>dibenzoyl peroxide (Benzoyl peroxide)</td>
<td>5</td>
</tr>
</tbody>
</table>

PERSONAL PROTECTION

RESPIRATOR
Particulate

EYE
- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.
NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

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

ENGINEERING CONTROLS
- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
White powder with a faint odour; does not mix with water.

PHYSICAL PROPERTIES
Does not mix with water.

Molecular Weight: Not Applicable
Melting Range (°C): 300
Solubility in water (g/L): Immiscible
pH (1% solution): Not Available
Volatile Component (%vol): Not Available
Relative Vapour Density (air=1): Not Applicable
Lower Explosive Limit (%): Not Applicable
Autoignition Temp (°C): Not Available
State: Divided Solid

Boiling Range (°C): Not Applicable
Specific Gravity (water=1): 1.0 approx.
pH (as supplied): Not Available
Vapour Pressure (kPa): Not Applicable
Evaporation Rate: Not Applicable
Flash Point (°C): 304 (TCC)
Upper Explosive Limit (%): Not Applicable
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
- Presence of incompatible materials.
- Product is considered stable.
- Presence of elevated temperatures.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS
Not applicable.

CHRONIC HEALTH EFFECTS
Not applicable.
TOXICITY AND IRRITATION

■ Not available. Refer to individual constituents.

DIBENZOYL PEROXIDE:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Oral (rat) LD50: 7710 mg/kg
Inhalation (human) TCLo: 12 mg/m³
Subcutaneous (rat) LD: 40 mg/kg (@ 50%)
Intraperitoneal (mouse) LD50: 440 mg/kg
Intravenous (rabbit) LD: 16 mg/kg

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.

The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

For benzoyl peroxide:
The acute oral toxicity of benzoyl peroxide is very low: LD50 >2,000 mg/kg bw in mice, and 5,000 mg/kg bw in rats. No deaths occurred in male rats following inhalation of 24.3 mg/L.

The substance is classified by IARC as Group 3:
NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

CARCINOGEN

Benzoyl peroxide International Agency for Research on Cancer (IARC) Carcinogens Group 3

Section 12 - ECOLOGICAL INFORMATION

No data

Ecotoxicity Ingredient Persistence: Water/Soil Persistence: Air Bioaccumulation Mobility
Dentsply Orthodontic Resin Powder dibenzoyl peroxide No data No data

Section 13 - DISPOSAL CONSIDERATIONS

■ Containers may still present a chemical hazard/danger when empty.
■ Return to supplier for reuse/recycling if possible.
■ Recycle wherever possible.
■ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None (ADG7)

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: None

REGULATIONS

Regulations for ingredients dibenzoyl peroxide (CAS: 94-36-0) is found on the following regulatory lists:
"Australia Dangerous Goods Code (ADG Code) - List of Currently Assigned Organic Peroxides in Packagings","Australia Exposure Standards","Australia Hazardous Substances","Australia Chemical Substances (ACS)","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 2","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 4","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5","International Agency for Research on Cancer (IARC) Carcinogens","International Air Transport Association (IATA) Dangerous Goods Regulations", "OECD Representative List of High Production Volume (HPV) Chemicals"
Section 16 - OTHER INFORMATION

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.