# **SAFETY DATA SHEETS**

This SDS packet was issued with item: 071811900

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

071811843 071811850 071811868 071811983 071813005 071813054 071813062

# Dentsply Regisil - Regisil 2X - Regisil PB - Regisil Rigid

#### **Dentsply (Australia)**

Chemwatch: 4993-58

Version No: **4.1.1.1** Material Safety Data Sheet according to NOHSC and ADG requirements

# SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

#### **Product Identifier**

| Product name                     | Dentsply Regisil - Regisil 2X - Regisil PB - Regisil Rigid   |  |  |
|----------------------------------|--|--|--|
| Chemical Name                    | Not Applicable   |  |  |
| Synonyms                         | Part number: 619100 - 619999, Regisil - Regisil 2X - Regisil PB - Regisil Rigid, Vinyl Polysiloxane Bite Registration Material |  |  |
| Proper shipping name             | Not Applicable   |  |  |
| Chemical formula                 | Not Applicable   |  |  |
| Other means of<br>identification | Not Available  |  |  |
| CAS number                       | Not Applicable   |  |  |

#### Relevant identified uses of the substance or mixture and uses advised against

| Relevant identified | For dental use only |
|---------------------|---------------------|
| uses                |                     |

# Details of the manufacturer/importer

| Registered company name | Dentsply (Australia)                               |  |
|-------------------------|--|--|
| Address                 | 11-21 Gilby Road Mount Waverley 3149 VIC Australia |  |
| Telephone               | +61 3 9538 8240                                    |  |
| Fax                     | +61 3 9538 8260                                    |  |
| Website                 | www.dentsply.com.au                                |  |
| Email                   | Not Available                                      |  |

#### **Emergency telephone number**

| Association /<br>Organisation        | lot Available                  |  |
|--------------------------------------|--------------------------------|--|
| Emergency telephone<br>numbers       | 1300 552 929 (Mon-Fri 9am-5pm) |  |
| Other emergency<br>telephone numbers | 1300 552 929 (Mon-Fri 9am-5pm) |  |

# **SECTION 2 HAZARDS IDENTIFICATION**

#### Classification of the substance or mixture

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

#### CHEMWATCH HAZARD RATINGS

|              | Min | Max |                          |
|--------------|-----|-----|--------------------------|
| Flammability | 1   |     |                          |
| Toxicity     | 1   |     | 0 = Minimum              |
| Body Contact | 2   |     | 1 = Low                  |
| Reactivity   | 1   |     | 2 = Moderate<br>3 = High |
| Chronic      | 3   |     | 4 = Extreme              |

| Poisons Schedule            | Not Applicable            |  |  |
|-----------------------------|---------------------------|--|--|
| Risk Phrases <sup>[1]</sup> | R36/37                    | Irritating to eyes and respiratory system.   |  |
| Legend:                     | 1. Classified by Ch<br>VI | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI |  |

Issue Date: 01/01/2013 Print Date: 15/10/2014

Initial Date: Not Available

S.Local.AUS.EN

Chemwatch Hazard Alert Code:



Relevant risk statements are found in section 2

| Indication(s) of<br>danger |
|----------------------------|
|----------------------------|

#### SAFETY ADVICE

| S25 | Avoid contact with eyes.   |  |
|-----|--|--|
| S26 | In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre. |  |
| S39 | Wear eye/face protection.  |  |
| S40 | To clean the floor and all objects contaminated by this material, use water and detergent.                 |  |
| S46 | If swallowed, seek medical advice immediately and show this container or label.                            |  |
| S56 | Dispose of this material and its container at hazardous or special waste collection point.                 |  |
| S64 | If swallowed, rinse mouth with water (only if the person is conscious).                                    |  |

#### Other hazards

| <br>May produce skin discomfort*.                  |
|--|
| Cumulative effects may result following exposure*. |
| Inhalation may produce health damage*.             |
| Limited evidence of a carcinogenic effect*.        |
| May possibly affect fertility*.                    |

# SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

#### Substances

See section below for composition of Mixtures

#### Mixtures

| CAS No        | %[weight] | Name  |
|---------------|-----------|---|
| 68083-19-2    | 30-60     | dimethylsiloxane, vinyl-terminated            |
| 7778-18-9     | 5-30      | calcium sulfate                               |
| 7631-86-9     | 5-30      | silica amorphous                              |
| 14464-46-1    | 5-30      | cristobalite                                  |
| 68037-59-2    | 5-15      | dimethylsiloxane, methylhydrogen-             |
| 68611-44-9    | <10       | silica amorphous, fumed                       |
| 13463-67-7    | <5        | titanium dioxide                              |
| 68515-40-2    | <5        | benzyl-C7-C8-alkyl phthalate                  |
| Not Available | <5        | organo platinum complex                       |
| 39277-28-6    | <2        | ar-tosylamide/ formaldehyde/ melamine polymer |
| 12769-96-9    | <2        | C.I. Pigment Violet 15                        |

# SECTION 4 FIRST AID MEASURES

# Description of first aid measures

| Eye Contact  | <ul> <li>If this product comes in contact with the eyes:</li> <li>Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>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.</li> <li>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>Transport to hospital or doctor without delay.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |           |  |
|--|--|-----------|--|
| Skin Contact       If skin or hair contact occurs:         Immediately flush body and clothes with large amounts of water, using safety shower if available.         Quickly remove all contaminated clothing, including footwear. |  |           |  |
|  | Created by Global Safety Management, IncTel: 1-813-435-5161 - www.gsmsds.com   | Continued |  |

|            | <ul> <li>Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information<br/>Centre.</li> <li>Transport to hospital, or doctor.</li> </ul> |
|------------|---|
| Inhalation | <ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>                                       |
| Ingestion  | <ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>                             |

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

| <ul> <li>Dry chemical powder.</li> <li>BCF (where regulations permit).</li> <li>Carbon dioxide.</li> </ul> |
|--|
|--|

#### Special hazards arising from the substrate or mixture

| Fire Incompatibility | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may<br>result |
|----------------------|---|
|                      |   |

#### Advice for firefighters

| <ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul> |   |  |  |
|--|---|--|--|
| Fire/Explosion Hazard  | <ul> <li>High temperature decomposition products include silicon dioxide, small amounts of formaldehyde, formic acid, acetic acid and traces of silicon polymers.</li> <li>These gases may ignite and, depending on circumstances, may cause the resin/polymer to ignite.</li> <li>An outer skin of silica may also form. Extinguishing of fire, beneath the skin, may be difficult.</li> </ul> |  |  |

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

| Minor Spills | <ul> <li>Slippery when spilt.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> </ul> |
|--------------|--|
| Major Spills | <ul> <li>Slippery when spilt.</li> <li>Minor hazard.</li> <li>Clear area of personnel.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> </ul>   |
|              |  |
|              | Personal Protective Equipment advice is contained in Section 8 of the MSDS.  |

#### SECTION 7 HANDLING AND STORAGE

#### Precautions for safe handling

| Safe handling     | <ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> </ul> |
|-------------------|--|
| Other information | <ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>         |

#### Conditions for safe storage, including any incompatibilities

| Suitable container | <ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul> |
|--------------------|---|
|--------------------|---|

Storage incompatibility

Avoid reaction with oxidising agents

### PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

#### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Control parameters**

# OCCUPATIONAL EXPOSURE LIMITS (OEL)

#### INGREDIENT DATA

| Source             | Ingredient   | Material name   | TWA     | STEL      | Peak      | Notes     |
|--------------------|--------------|---|---------|-----------|-----------|-----------|
| Australia Exposure | calcium      | Calcium sulphate (a)                                  | 10      | Not       | Not       | Not       |
| Standards          | sulfate      |   | mg/m3   | Available | Available | Available |
| Australia Exposure | silica       | Silica - Amorphous Fumed silica (respirable dust)     | 2 mg/m3 | Not       | Not       | Not       |
| Standards          | amorphous    | / Fumed silica (respirable dust)                      |         | Available | Available | Available |
| Australia Exposure | cristobalite | Silica - Crystalline Cristobalite (respirable dust) / | 0.1     | Not       | Not       | Not       |
| Standards          |              | Cristobalite (respirable dust)                        | mg/m3   | Available | Available | Available |
| Australia Exposure | titanium     | Titanium dioxide (a)                                  | 10      | Not       | Not       | Not       |
| Standards          | dioxide      |   | mg/m3   | Available | Available | Available |

#### EMERGENCY LIMITS

| Ingredient   | TEEL-0                     | TEEL-1        | TEEL-2        |               | TEEL-3        |  |
|--|----------------------------|---------------|---------------|---------------|---------------|--|
| Dentsply Regisil -<br>Regisil 2X - Regisil PB -<br>Regisil Rigid | Not Available              | Not Available | Not Availab   | ble           | Not Available |  |
| Ingredient   | Original IDLH Revised IDLH |               |               |               |               |  |
| dimethylsiloxane, vinyl-<br>terminated                           | Not Available              |               |               | Not Available |               |  |
| calcium sulfate  | Not Available              |               |               | Not Available |               |  |
| silica amorphous   | N.E. mg/m3 / N.E. ppm      |               |               | 3,000 mg/m3   |               |  |
| cristobalite   | N.E. mg/m3 / N.E. ppm      |               |               | 25 mg/m3      |               |  |
| dimethylsiloxane,<br>methylhydrogen-                             | Not Available              |               |               | Not Available |               |  |
| silica amorphous, fumed  | N.E. mg/m3 / N.E. ppm      |               |               | 3,000 mg/m3   |               |  |
| titanium dioxide   | N.E. mg/m3 / N.E. ppm      |               |               | 5,000 mg/m3   |               |  |
| benzyl-C7-C8-alkyl<br>phthalate                                  | Not Available              |               |               | Not Available |               |  |
| organo platinum<br>complex                                       | Not Available              |               |               | Not Available |               |  |
| ar-tosylamide/<br>formaldehyde/<br>melamine polymer              | Not Available              |               | Not Available |               |               |  |
| C.I. Pigment Violet 15   | Not Available              |               |               | Not Available |               |  |

#### Exposure controls

| Appropriate<br>engineering controls | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed<br>engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to<br>provide this high level of protection.<br>The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and<br>ventilation that strategically "adds" and "removes" air in the work environment. |
|-------------------------------------|--|
| Personal protection                 |  |

| Eye and face<br>protection | <ul> <li>Chemical goggles.</li> <li>Full face shield may be required for supplementary but never for primary protection of eyes.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> </ul> |
|----------------------------|--|
| Skin protection            | See Hand protection below  |
| Hands/feet protection      | Wear protective gloves, e.g. PVC. <ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul>   |
| Body protection            | See Other protection below   |
| Other protection           | <ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> </ul>   |
| Thermal hazards            | Not Available  |

#### Recommended material(s)

#### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

CPI

Dentsply Regisil - Regisil 2X - Regisil PB - Regisil Rigid Not Available

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion C: Poor to Dangerous Choice for other than short term immersion

**NOTE**: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### **Respiratory protection**

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required<br>Minimum<br>Protection Factor | Half-Face<br>Respirator | Full-Face<br>Respirator | Powered Air<br>Respirator  |
|--|-------------------------|-------------------------|----------------------------|
| up to 10 x ES                            | A-AUS P2                | -                       | A-PAPR-AUS /<br>Class 1 P2 |
| up to 50 x ES                            | -                       | A-AUS / Class<br>1 P2   | -                          |
| up to 100 x ES                           | -                       | A-2 P2                  | A-PAPR-2 P2 ^              |

#### ^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

#### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

| Appearance                                      | Various coloured pastes with faint sweet odour; does not mix with water |  |                          |
|---|---|--|--------------------------|
|   |   |  |                          |
| Physical state                                  | Non Slump Paste   | Relative density<br>(Water = 1)            | 1.2 (1.6 for PB & Rigid) |
| Odour   | Not Available   | Partition coefficient<br>n-octanol / water | Not Available            |
| Odour threshold                                 | Not Available   | Auto-ignition<br>temperature (°C)          | Not Available            |
| pH (as supplied)                                | Not Available   | Decomposition<br>temperature               | Not Available            |
| Melting point /<br>freezing point (°C)          | Not Available   | Viscosity (cSt)                            | Not Available            |
| Initial boiling point<br>and boiling range (°C) | 200   | Molecular weight<br>(g/mol)                | Not Applicable           |
| Flash point (°C)                                | 213   | Taste                                      | Not Available            |
| Evaporation rate                                | <1  | Explosive properties                       | Not Available            |
| Flammability                                    | Not Applicable  | Oxidising properties                       | Not Available            |
| Upper Explosive Limit<br>(%)                    | Not Available   | Surface Tension<br>(dyn/cm or mN/m)        | Not Available            |

| Lower Explosive Limit<br>(%) | Not Available  | Volatile Component<br>(%vol) | Not Available |
|------------------------------|----------------|------------------------------|---------------|
| Vapour pressure (kPa)        | Not Applicable | Gas group                    | Not Available |
| Solubility in water<br>(g/L) | Immiscible     | pH as a solution(1%)         | Not Available |
| Vapour density (Air =<br>1)  | Not Applicable | VOC g/L                      | Not Available |

#### SECTION 10 STABILITY AND REACTIVITY

| Reactivity                             | See section 7  |
|--|--|
| Chemical stability                     | <ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> <li>Presence of elevated temperatures.</li> </ul> |
| Possibility of<br>hazardous reactions  | See section 7  |
| Conditions to avoid                    | See section 7  |
| Incompatible materials                 | See section 7  |
| Hazardous<br>decomposition<br>products | See section 5  |

# SECTION 11 TOXICOLOGICAL INFORMATION

# Information on toxicological effects

| Inhaled                                    | Not normally a hazard due to non-volatile nature of product<br>The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC<br>Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that<br>suitable control measures be used in an occupational setting.   |               |
|--|--|---------------|
| Ingestion                                  | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health).  |               |
| Skin Contact                               | Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. |               |
| Eye  | Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.  |               |
| Chronic                                    | Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.<br>There is limited evidence that the material may produce serious damage (clear functional disturbance or morphological change which may have toxicological significance) following repeated or prolonged exposure. As a rule the material may produce, or contains a substance which may produce severe lesions. Such damage may become apparent following direct application in subchronic (90 day) toxicity studies or following sub-acute (28 day) or chronic (two-year) toxicity tests.  |               |
| Dentsply Regisil -                         | ΤΟΧΙΟΙΤΥ   | IRRITATION    |
| Regisil 2X - Regisil PB<br>- Regisil Rigid | Oral (Rat) LD50: >2000<br>mg/kg  | Not Available |

TOXICITY

ml/kg

Dermal (rabbit) LD50: >16

Oral (rat) LD50: >16 ml/kg

IRRITATION

|                                   | Not Available                               | Not Available                         |
|-----------------------------------|---|---------------------------------------|
|                                   | TOXICITY                                    | IRRITATION                            |
| calcium sulfate                   | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
|                                   | Dermal (rabbit) LD50: >5000<br>mg/kg *      | * [Grace]                             |
| silica amorphous                  | Inhalation (rat) LC50: >0.139<br>mg/l/14h * | Eye (rabbit): non-irritating *        |
|                                   | Oral (rat) LD50: 3160 mg/kg                 | Skin (rabbit): non-irritating *       |
|                                   | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
| cristobalite                      | Not Available                               | Not Available                         |
| dimethylsiloxane,                 | TOXICITY                                    | IRRITATION                            |
| methylhydrogen-                   | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
| silica amorphous,                 | Oral (rat) LD50: >5000 mg/kg                | [Wacker]                              |
| fumed                             | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
|                                   | Oral (Mouse) LD50: >10000<br>mg/kg *        | Skin (human): 0.3 mg /3D (int)-mild * |
| titanium dioxide                  | Oral (Rat) LD50: >20000<br>mg/kg *          |                                       |
|                                   | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
| benzyl-C7-C8-alkyl                | Dermal (Rabbit) LD50: >7940<br>* mg/kg      | Eye (rabbit): 0.0/110.0 *             |
| phthalate                         | Oral (rat) LD50: >15800<br>mg/kg *          | Skin (rabbit): 0.5/8.0 * mild         |
|                                   | Not Available                               | Not Available                         |
| ar-tosylamide/                    | ΤΟΧΙΟΙΤΥ                                    | IRRITATION                            |
| formaldehyde/<br>melamine polymer | Not Available                               | Not Available                         |
|                                   | TOXICITY                                    | IRRITATION                            |
| C.I. Pigment Violet 15            | Oral (rat) LD50: >10,000<br>mg/kg           |                                       |
|                                   | Not Available                               | Not Available                         |

\* Value obtained from manufacturer's msds

1

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

| CALCIUM SULFATE  | Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. |
|------------------|--|
| SILICA AMORPHOUS | Reports indicate high/prolonged exposures to amorphous silicas induced lung fibrosis in experimental animals; in some experiments these effects were reversible. [PATTYS]  |

|  | WARNING: For inhalation exposure <u>ONLY</u> : This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS   |                 |   |  |
|--|--|-----------------|---|--|
| CRISTOBALITE   | The International Agency for Research on Cancer (IARC) has classified occupational exposures to <b>respirable</b> (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours. Inhalation (human) TCLo: 16 mppcf*/8H/17.9y-I * Millions of particles per cubic foot  |                 |   |  |
| TITANIUM DIOXIDE   | The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants<br>may produce conjunctivitis.<br>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis<br>(nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.<br>* IUCLID   |                 |   |  |
| BENZYL-C7-C8-ALKYL<br>PHTHALATE  | The material may produce peroxisome proliferation. Peroxisomes are single, membrane limited, cytoplasmic organelles that are found in the cells of animals, plants, fungi and protozoa. Peroxisome proliferators include certain hypolipidaemic drugs, phthalate ester plasticisers, industrial solvents, herbicides, food flavours, leukotriene D4 antagonists and hormones. Numerous studies in rats and mice have demonstrated the hepatocarcinogenic effects of peroxisome proliferators, and these compounds have been unequivocally established as carcinogens.  |                 |   |  |
| AR-TOSYLAMIDE/<br>FORMALDEHYDE/<br>MELAMINE POLYMER                            | No significant acute toxicological data identified in literature search.   |                 |   |  |
| C.I. PIGMENT VIOLET<br>15  | NOTE: 90 day (chronic), teratological and mutagenicity tests have all provided negative results. Animal tests have also demonstrated no skin irritation or sensitization. [ICI]  |                 |   |  |
| DIMETHYLSILOXANE,<br>VINYL-TERMINATED,<br>DIMETHYLSILOXANE,<br>METHYLHYDROGEN- | For siloxanes:<br>Effects which based on the reviewed literature do not seem to be problematic are acute toxicity, irritant effects,<br>sensitization and genotoxicity.<br>Some studies indicate that some of the siloxanes may have endocrine disrupting properties, and reproductive effects<br>have caused concern about the possible effects of the siloxanes on humans and the environment.<br>Only few siloxanes are described in the literature with regard to health effects, and it is therefore not possible to make<br>broad conclusions and comparisons of the toxicity related to short-chained linear and cyclic siloxanes based on the<br>present evaluation. Data are primarily found on the cyclic siloxanes D4 (octamethylcyclotetrasiloxane)<br>and D5 (decamethylcyclopentasiloxane) and the short-linear HMDS (hexamethyldisiloxane). |                 |   |  |
| SILICA AMORPHOUS,<br>SILICA AMORPHOUS,<br>FUMED                                | For silica amorphous:<br>When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly<br>eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body.<br>Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not<br>expected to be broken down (metabolised) in mammals.  |                 |   |  |
| Acute Toxicity   | 0  | Carcinogenicity | 0 |  |
| Skin<br>Irritation/Corrosion   | 0  | Reproductivity  | 0 |  |

SECTION 12 ECOLOGICAL INFORMATION

Toxicity DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Serious Eye

sensitisation

Mutagenicity

Damage/Irritation

Respiratory or Skin

CMR STATUS Not Applicable ¥

0

0

STOT - Single

STOT - Repeated

**Aspiration Hazard** 

Legend:

Exposure

Exposure

4

0

0

Data required to make classification available

S – Data Not Available to make classification

X – Data available but does not fill the criteria for classification

Continued...

| Ingredient       | Persistence: Water/Soil | Persistence: Air |
|------------------|-------------------------|------------------|
| calcium sulfate  | LOW                     | LOW              |
| silica amorphous | HIGH                    | HIGH             |
| titanium dioxide | LOW                     | LOW              |

#### Bioaccumulative potential

| Ingredient       | Bioaccumulation   |
|------------------|-------------------|
| calcium sulfate  | LOW (BCF = 3.162) |
| silica amorphous | LOW (BCF = 3.162) |
| titanium dioxide | LOW (BCF = 10)    |

#### Mobility in soil

| Ingredient       | Mobility          |
|------------------|-------------------|
| calcium sulfate  | LOW (KOC = 6.124) |
| silica amorphous | LOW (KOC = 23.74) |
| titanium dioxide | LOW (KOC = 23.74) |

#### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

| Product / Packaging <ul> <li>Consult manufacturer for recycling options and recycle where possible .</li> <li>Consult State Land Waste Management Authority for disposal.</li> <li>Incinerate residue at an approved site.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul> |
|---|
|---|

#### **SECTION 14 TRANSPORT INFORMATION**

# Labels Required Marine Pollutant NO HAZCHEM Not Applicable

#### Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

#### Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

# Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

#### Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

| Source  | Ingredient       | Pollution Category |
|---|------------------|--------------------|
| IMO MARPOL 73/78<br>(Annex II) - List of<br>Noxious Liquid<br>Substances Carried in<br>Bulk | titanium dioxide | Z                  |

# SECTION 15 REGULATORY INFORMATION

#### Safety, health and environmental regulations / legislation specific for the substance or mixture

| dimethylsiloxane, vinyl-<br>terminated(68083-19-2) is<br>found on the following<br>regulatory lists | "Australia Inventory of Chemical Substances (AICS)"   |
|---|---|
| calcium sulfate(7778-18-9) is<br>found on the following<br>regulatory lists                         | "Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)"   |
| silica amorphous(7631-86-9)<br>is found on the following<br>regulatory lists                        | "Australia Exposure Standards","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC<br>Monographs","Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information<br>System - Consolidated Lists" |
| cristobalite(14464-46-1) is<br>found on the following<br>regulatory lists                           | "Australia Exposure Standards", "Australia Inventory of Chemical Substances (AICS)", "Australia Hazardous Substances<br>Information System - Consolidated Lists"  |

| dimethylsiloxane,<br>methylhydrogen-(68037-59-2)<br>is found on the following<br>regulatory lists                | "Australia Inventory of Chemical Substances (AICS)"  |
|--|--|
| silica amorphous,<br>fumed(68611-44-9) is found<br>on the following regulatory<br>lists                          | "Australia Inventory of Chemical Substances (AICS)","Australia Hazardous Substances Information System -<br>Consolidated Lists"  |
| titanium dioxide(13463-67-7)<br>is found on the following<br>regulatory lists                                    | "Australia Exposure Standards","International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs","Australia Inventory of Chemical Substances (AICS)" |
| benzyl-C7-C8-alkyl<br>phthalate(68515-40-2) is<br>found on the following<br>regulatory lists                     | "Australia Inventory of Chemical Substances (AICS)"  |
| ar-tosylamide/<br>formaldehyde/ melamine<br>polymer(39277-28-6) is<br>found on the following<br>regulatory lists | "Australia Inventory of Chemical Substances (AICS)"  |
| C.I. Pigment Violet<br>15(12769-96-9) is found on<br>the following regulatory<br>lists                           | "Australia Inventory of Chemical Substances (AICS)"  |

#### **SECTION 16 OTHER INFORMATION**

#### 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

This document is copyright. Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.

# DENTSPLY/International DENTSPLY/Caulk Safety Data Sheet

#### 1. Identification

| 1. Identification                               |  |  |  |
|---|--|--|--|
| SDS Code Number                                 |  |  |  |
| 519899  |  |  |  |
| Date of Last Revision                           |  |  |  |
| 11/12/13  |  |  |  |
| Address   |  |  |  |
| 38 West Clarke Avenue                           |  |  |  |
| Milford DE 19963-1805                           |  |  |  |
| http://www.caulk.com, http://www.dentsply.com   |  |  |  |
| Information Telephone Number                    |  |  |  |
| (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time) |  |  |  |
| Emergency Telephone Number                      |  |  |  |
| (302) 422-4511 (8:00 AM – 4:30 PM Eastern Time) |  |  |  |
|   |  |  |  |

# 2. Hazard(s) Identification



CAUSES SKIN IRRITATION

#### WASH HANDS THOROUGHLY AFTER HANDLING WEAR PROTECTIVE GLOVES IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE / ATTENTION TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE

## 3. Composition/Information on Ingredients

| <b>L</b>                           | 0             |                       |           |
|------------------------------------|---------------|-----------------------|-----------|
| Hazardous Components               | C.A.S. Number | Exposure Limits       | %         |
| Silicon Dioxide - Crystalline      | 14464-46-1    | $0.05 \text{ mg/m}^3$ | < than 55 |
| Silicon Dioxide - Amorphous        | 7631-86-9     | $1.2 \text{ mg/m}^3$  | < than 35 |
| Calcium Sulfate                    | 7778-18-9     | $10 \text{ mg/m}^3$   | < than 15 |
| Hydrophobic Amorphous Fumed Silica | 68611-44-9    | $10 \text{ mg/m}^3$   | < than 10 |
| Titanium Dioxide                   | 13463-67-7    | $10 \text{ mg/m}^3$   | < than 5  |

**Colorant Information** The base pastes may contain fluorescent organic dyes and/or ultramarine pigments.

The Chemical structure of all Ultramarine pigments, regardless of color, is Sodium Aluminosulfosilicate.

# 4. First Aid Measures

| Routes of<br>Exposure   | First Aid Instructions   | Immediate<br>Medical Attention | Delayed Effects   |
|---|--|--------------------------------|---|
| Eye   | Rinse opened eye for several minutes under running water. If<br>symptoms persist consult physician | Not Applicable                 | Not Applicable  |
| Skin  | Immediately wash with soap and water and rinse thoroughly  | Not Applicable                 | Not Applicable  |
| Inhalation  | Supply fresh air, consult physician if symptoms persist  | Not Applicable                 | Not Applicable  |
| Ingestion   | If symptoms persist consult physician  | Not Applicable                 | Low order of toxicity is expected when large<br>amounts of material are ingested. Acute<br>toxicology study in rats LD <sub>50</sub> >2,000mg/kg. |
| Other   | Not Applicable   | Not Applicable                 | Not Applicable  |
| Note to Physicians (Treating, Testing and Monitoring): Treat symptomatically. |  |                                |   |

# 5. Fire Fighting Measures

| Flame Propagation or Burning Rate  | Properties Contributing to Fire Intensity: | Flammability Classification: Not Applicable | Other: Not Applicable |
|--|--|---|-----------------------|
| (for Solids): Not Applicable   | Not Applicable                             |   |                       |
| Extinguishing Media: CO <sub>2</sub> , extinguishing powder, foam carbon dioxide or water Extinguishing Media to Avoid: Water with full jet. |  |   | et.                   |
| spray. Fight larger fires with water spray or alcohol resistant foam.  |  |   |                       |
| Protection and Procedures for Firefighters: Firefighters should wear self-contained respiratory protective devices.                          |  |   |                       |
| Unusual Fire and Explosion Hazards: No dangerous decomposition products known Product does not present an explosion hazard.                  |  |   |                       |

# 6. Accidental Release Measures

Containment Techniques: Material is a paste and as such will not flow.

 Spill/Leak Clean-up Procedures and Equipment: Wear protective clothing and scoop up bulk material and place in a labeled plastic or metal container.

 Avoid gross skin contact to minimize the possibility of contact dermatitis to susceptible persons. Ensure adequate ventilation.

 Evacuation Procedures: Not Applicable
 Special Instructions: Not Applicable
 Reporting Requirements: Not Applicable

# 7. Handling and Storage

Handling Practices and Warnings: Product is intended for dental use only. Handling of this product should be by trained dental healthcare professionals only. Observe normal care for working with chemicals.

Storage Practices and Warnings: Store only in the original package. Keep package tightly sealed. Store in a dry area. Protect from exposure to direct light. Store away from food and beverages.

# 8. Exposure Control / Personal Protection



| Individual Protection     | Personal Protective Equipment for Normal Use                           | Personal Protective Equipment for |
|---------------------------|--|-----------------------------------|
| Measures                  |  | Emergencies                       |
| Eye/Face                  | Safety Glasses   | Not Applicable                    |
| Skin                      | The glove material has to be impermeable and resistant to the product. | Not Applicable                    |
| Inhalation                | Not Required   | Not Applicable                    |
| Body Protection           | Protective work clothing   | Not Applicable                    |
| Occupational Exposure Lim | Engineering Controls: Not Applicable                                   |                                   |

# 9. Physical and Chemical Characteristics

| Appearance: Various colored pastes, may be high viscosity paste or runny. Catalyst is grey-colored.              |   | Odor: Characteristic sweet ester odor.    |  |
|--|---|---|--|
| Normal Physical State: Material is available in several viscosities. It varies from a very high viscosity liquid |   | Melting Point: Not Applicable             |  |
| (Paste) to a more runny material.  |   |   |  |
| Specific Gravity: 1.2 g/cm <sup>3</sup> (1.6 g/cm <sup>3</sup> for PB & Rigid)                                   | Solubility in Water: Not soluble        | pH: Not Applicable                        |  |
| Vapor Pressure (mm Hg): Not Applicable   | Vapor Density (AIR=1): Not Applicable   | Evaporation Rate (Butyl Acetate =1): N A  |  |
| Flashpoint Method: Not Applicable  | Flammable (Explosive) Limits in Air     | Autoignition Temperature: Not Applicable, |  |
|  | LEL: Not Applicable UEL: Not Applicable | Product will not autoignite.              |  |
|  |   |   |  |

Other: Not Applicable

# 10. Stability and Reactivity Data

| Incompatibility (Materials to Avoid): Strong oxidizing materials.  |  |  |  |
|--|--|--|--|
| Hazardous Products Produced During Decomposition: No dangerous decomposition products known if used according to Directions for Use. |  |  |  |
| Hazardous Polymerization: May Occur May Not Occur Conditions to Avoid: None known  |  |  |  |
| Stability? 🛛 Stable 🗌 Unstable Conditions to Avoid: None known   |  |  |  |

# **11.Toxicological Information**

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects, or Structure Activity Data: Product may irritate the skin and mucous membranes. The unpolymerized product may cause irritation to the skin in susceptible persons. On the eye the product has an irritating effect. Sensitization: No sensitizing effects known. Emergency Overview: Material may be mildly irritating to eyes. Routes of Single, Repeated, or Severity (Mild, Acute and Chronic Health Effect(s) Exposure Signs and Symptoms Lifetime Exposure Moderate, Severe) Target Organ(s) Material can cause irritation. Moderate Irritation and possible corneal damage Not Applicable Eye Single Irritation or possible allergic response. Skin Material may be an irritant Single & Repeated Moderate Not Applicable Not Applicable Inhalation Not Applicable Not Applicable Not Applicable Not Applicable Ingestion Material is probably not Not Applicable Mild Low order of toxicity is expected when Not Applicable harmful if swallowed large amounts of material are ingested. Acute toxicology study in rats LD50 >2,000mg/kg. Other Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Medical Conditions Aggravated by Exposure Open sores and wounds of the skin. NTP?: Not listed IARC monographs?: Not listed OSHA regulated?: No All components of this product are in Carcinogenicity compliance with the inventory listing Requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

Potential Environmental Effects Do not allow to enter sewers/ surface or ground water.

NFPA Hazard Classification Ratings (Scale 0-4), Health = 0, Fire = 1, Reactivity = 0

# **12.Ecological Information**

Toxicity Data, Environmental Fate, Physical/Chemical Data, or other Data Supporting Environmental Hazard Statements: Water Hazard class1 (Selfassessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water streams or sewage system.

# **13.Disposal Considerations**

Regulations: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of material as solid waste in a closed container. Dispose of in accordance with Federal, State and Local regulations Properties (Physical/Chemical) Affecting Disposal: Dispose of material as solid waste in a closed container.

# **14.Transport Information**

| Regulated for Shipping: No. Not Regulated        | DOT Shipping Name: Not Regulated | Packing Group: Not Applicable |
|--|----------------------------------|-------------------------------|
| Do Changes in Quantities, packaging, or shipment | DOT Hazard Class: Not Applicable | UN Number: Not Applicable     |
| method change product classification? No         |                                  |                               |

# **15.Regulatory Information**

This product has been classified in accordance with the hazard criteria of the Globally Harmonized System of Classification and Labeling of Chemicals and the SDS contains all of the information required by the Canadian Controlled Products Regulations. U.S. Federal Regulations: <u>CERCLA 103 Reportable Quantity</u>: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

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

<u>EPA Toxic Substances Control Act (TSCA) Status:</u> All of the components of this product are listed on the TSCA inventory. <u>U.S. State Regulations California Proposition 65:</u> This product does not contain any chemicals, which are on the California Proposition 65 list.

International Regulations: Canadian Environmental Protection Act:

This product is a medical device and not subject to chemical notification requirements.

European Community Labeling: Not a dangerous preparation.

European Inventory of New and Existing Chemicals Substances (EINECS):

This product is a medical device and not subject to chemical notification requirements.

Other: Not Applicable

# **16.Other Information**

To the best of our knowledge this product does not contain gluten, wheat grains, flaxseed, natural rubber, or natural latex.

All components are synthetically produced; none are derived from animal products.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific products features and shall not establish a legally valid contractual relationship.

The attached safety data sheet covers the dangers and measures to be taken when large quantities of material are released, for example due to accidents during transport or storage by the dealer. For quantities of material typically used in clinical practice, information necessary for safe use and storage of the product is given in the DFU.