Section 1. Identification

Product name: Build-It® FR™ Core Build-up Material
Other means of identification: Not available.
Product type: Paste.

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

Product use: Dental product (Kit)
Manufacturer: Pentron Clinical
1717 West Collins Avenue
Orange, CA 92867-5422
Telephone no.: 1-203-265-7397, Toll Free: 1-800-551-0283

Emergency telephone number (with hours of operation): CHEMTREC® (24 hours) U.S.: 1-800-424-9300 International: +1-703-527-3887
e-mail address of person responsible for this SDS: edwin.varela@kavokerrgroup.com

Section 2. Hazards identification

HSNO Classification:
6.1 - ACUTE TOXICITY (oral) - Category E
6.3 - SKIN IRRITATION - Category A
6.4 - EYE IRRITATION - Category A (Irritant)
6.5 - SENSITIZATION - Category B (Skin)
6.8 - REPRODUCTIVE AND DEVELOPMENTAL TOXICITY (Fertility) - Category B
6.9 - SPECIFIC TARGET ORGAN TOXICITY (SINGLE OR REPEATED EXPOSURE) - Category B
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 89.8%
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 99.1%

This material is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 and has been classified according to the Hazardous Substances (Classifications) Regulations 2001.

This material is not classified as a dangerous good according to criteria in New Zealand Standard 5433:2007 Transport of Dangerous Goods on Land.

GHS label elements
Signal word: Warning
Hazard statements:
May be harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements
Prevention:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear eye or face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:
IF ON SKIN: Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wash hands after handling. IF exposed or concerned: Call a POISON CENTER or doctor/physician if you feel unwell. Get medical advice/attention.

Storage:
Store locked up.

Version: 1 Date of issue/Date of revision: 3/13/2014.
Section 2. Hazards identification

**Disposal**
- Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Symbol**
- [Symbol image]

**Other hazards which do not result in classification**
- None known.

Section 3. Composition/information on ingredients

**Substance/mixture**
- Mixture

**Other means of identification**
- Not available.

**CAS number/other identifiers**
- CAS number: Not applicable.
- EC number: Mixture.
- Product code: Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>glass, oxide, chemicals</td>
<td>&gt;=35 - &lt;50</td>
<td>65997-17-3</td>
</tr>
<tr>
<td>(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]</td>
<td>&gt;=10 - &lt;15</td>
<td>1565-94-2</td>
</tr>
<tr>
<td>bismethacrylate</td>
<td>&gt;=10 - &lt;20</td>
<td>6606-59-3</td>
</tr>
<tr>
<td>1,6-hexanediyl bismethacrylate</td>
<td>&gt;=5 - &lt;10</td>
<td>112945-52-5</td>
</tr>
<tr>
<td>Silica, amorphous, fumed, cryst.-free</td>
<td>&gt;=1 - &lt;5</td>
<td>65997-18-4</td>
</tr>
<tr>
<td>Frits, chemicals</td>
<td>&gt;=0.5 - &lt;5</td>
<td>75980-60-8</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First-aid measures

**Description of necessary first aid measures**

**Inhalation**
- No special measures required. If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**Ingestion**
- Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Get medical attention if adverse health effects persist or are severe.

**Skin contact**
- No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.

**Eye contact**
- No special measures are required. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

**Inhalation**
- Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Ingestion**
- May be harmful if swallowed. Irritating to mouth, throat and stomach.

**Skin contact**
- Causes skin irritation. May cause an allergic skin reaction.

**Eye contact**
- Causes serious eye irritation.

Version : 1
Date of issue/Date of revision : 3/13/2014
Section 4. First-aid measures

Inhalation: Adverse symptoms may include the following:
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

Ingestion: Adverse symptoms may include the following:
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

Skin: Adverse symptoms may include the following:
- irritation
- redness
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

Eyes: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Protection of first-aiders:
No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician:
Treat symptomatically.

Specific treatments:
Not available.

Indication of immediate medical attention and special treatment needed, if necessary

Specific treatments: Not available.
Notes to physician: Treat symptomatically.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable: In case of fire, use water, dry chemical powder or carbon dioxide.

Not suitable: Do not use water jet.

Specific hazards arising from the chemical:
No specific fire or explosion hazard.

Hazardous thermal decomposition products:
Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- phosphorus oxides
- metal oxide/oxides

Hazchem code: Not available.

Special precautions for fire-fighters:
In case of major fire and large quantities: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely.

Environmental precautions:
Low release. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Version: 1
Date of issue/Date of revision: 3/13/2014.
Section 6. Accidental release measures

Small spill: Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Large spill: Small Quantity. For professional use only. Absorb with an inert material and place in an appropriate waste disposal container.

Section 7. Handling and storage

Precautions for safe handling: No special measures are required for small quantities under normal and intended conditions of product use. For professional use only. Put on appropriate personal protective equipment (see Section 8). Handle with care and dispose of in a safe manner.

Conditions for safe storage, including any incompatibilities: Store between the following temperatures: 2 to 8°C (35.6 to 46.4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>glass, oxide, chemicals</td>
<td>NZ OSH (New Zealand, 2/2013). WES-TWA: 5 f/ml 8 hours. Form: inhalable fiber WES-TWA: 1 f/ml 8 hours. Form: respirable fiber EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 6 mg/m³ 8 hours. Form: inhalable dust TWA: 2.4 mg/m³ 8 hours. Form: respirable dust</td>
</tr>
<tr>
<td>Silica, amorphous, fumed, cryst.-free</td>
<td></td>
</tr>
</tbody>
</table>

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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Section 8. Exposure controls/personal protection

**Hygiene measures**
- No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection**
- No special measures are required for small quantities under normal and intended conditions of product use. Large scale processes: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hand protection**
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Eye protection**
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 9. Physical and chemical properties

**Appearance**
- Physical state: Paste.
- Colour: Base: Various
  Catalyst.: White.
- Odour: Fruity./Ester.
- Odour threshold: Not available.
- pH: Not available.
- Melting point: Not available.
- Boiling point: Not available.
- Flash point: Not available.
- Burning rate: Not available.
- Burning time: Not available.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not available.
- Lower and upper explosive (flammable) limits: Not available.
- Vapour pressure: Not available.
- Vapour density: Not available.
- Relative density: Not available.
- Density: 1.7 g/cm³
- Solubility: Insoluble in the following materials: cold water and hot water.
- Partition coefficient: n-octanol/water: Not available.
Section 9. Physical and chemical properties

Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
SADT: Not available.
Viscosity: Not available.
Physical/chemical properties comments: Content (%) (solids): >=65

Aerosol product

Type of aerosol: Not applicable.
Heat of combustion: Not available.
Ignition distance: Not applicable.
Enclosed space ignition - Time equivalent: Not applicable.
Enclosed space ignition - Deflagration density: Not applicable.
Flame height: Not applicable.
Flame duration: Not applicable.

Section 10. Stability and reactivity

Chemical stability: The product is stable.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: Protect from sunlight. Initiators. Avoid excessive heat.
Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials and reducing materials. Peroxide. Amines.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous polymerisation will not occur. Long term: Polymerisation.

Section 11. Toxicological information

Information on the likely routes of exposure

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion: May be harmful if swallowed. Irritating to mouth, throat and stomach.
Skin contact: Causes skin irritation. May cause an allergic skin reaction.
Eye contact: Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Section 11. Toxicological information

Skin contact: Adverse symptoms may include the following:
- irritation
- redness
- reduced foetal weight
- increase in foetal deaths
- skeletal malformations

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, amorphous, fumed, cryst.-free</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3160 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion
Not available.

Sensitisation
Not available.

Potential chronic health effects

General: May cause damage to organs through prolonged or repeated exposure.

Inhalation: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Skin contact: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Eye contact: No known significant effects or critical hazards.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: Suspected of damaging fertility.

Chronic toxicity
Not available.

Carcinogenicity
Not available.

Mutagenicity
Not available.

Teratogenicity
Not available.

Reproductive toxicity
Not available.

Specific target organ toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frits, chemicals</td>
<td>Category B</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Aspiration hazard
Not available.

Version: 1

Date of issue/Date of revision: 3/13/2014.
Section 11. Toxicological information

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3449 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Ecotoxicity**

No known significant effects or critical hazards.

**Aquatic and terrestrial toxicity**

Not available.

**Persistence/degradability**

Not available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frits, chemicals diphenyl(2,4, 6-trimethylbenzoyl) phosphine oxide</td>
<td>-</td>
<td>5613</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>53 to 72</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

| Soil/water partition coefficient (K<sub>oc</sub>) | Not available. |

**Other adverse effects**

No known significant effects or critical hazards.

Section 13. Disposal considerations

**Disposal methods**

This material and its container must be disposed of in a safe way.

Section 14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand Class</td>
<td>Not regulated.</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>ADG Class</td>
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<td>-</td>
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<td>ADR/RID Class</td>
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<tr>
<td>IATA Class</td>
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<tr>
<td>IMDG Class</td>
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<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

PG*: Packing group
Section 15. Regulatory information

New Zealand Inventory of Chemicals (NZIoC) : Not determined.

HSNO Approval Number : Not available.

HSNO Group Standard : Not available.

HSNO Classification : 6.1 - ACUTE TOXICITY (oral) - Category E
                      6.3 - SKIN IRRITATION - Category A
                      6.4 - EYE IRRITATION - Category A (Irritant)
                      6.5 - SENSITIZATION - Category B (Skin)
                      6.8 - REPRODUCTIVE AND DEVELOPMENTAL TOXICITY (Fertility) - Category B
                      6.9 - SPECIFIC TARGET ORGAN TOXICITY (SINGLE OR REPEATED EXPOSURE) - Category B

Australia inventory (AICS) : Not determined.

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

Section 16. Other information

History
Date of issue/Date of revision : 3/13/2014.
Date of previous issue : No previous validation.
Version : 1
Prepared by : IHS

Key to abbreviations : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
                      ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
                      ATE = Acute Toxicity Estimate
                      BCF = Bioconcentration Factor
                      GHS = Globally Harmonized System of Classification and Labelling of Chemicals
                      IATA = International Air Transport Association
                      IBC = Intermediate Bulk Container
                      IMDG = International Maritime Dangerous Goods
                      LogPow = logarithm of the octanol/water partition coefficient
                      RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
                      UN = United Nations

References : GHS - Globally Harmonized System of Classification and Labeling of Chemicals
                         International transport regulations

Indicates information that has changed from previously issued version.

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Version : 1   Date of issue/Date of revision : 3/13/2014.