SAFETY DATA SHEET
TempSpan® Transparent Temporary Cement - Base

Section 1. Identification

GHS product identifier : TempSpan® Transparent Temporary Cement - Base
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)
Area of application : Professional applications.

Manufacturer : Pentron Clinical
1717 West Collins Avenue
Orange, CA  92867-5422
Telephone no.: 1-203-265-7397, Toll Free: 1-800-551-0283

e-mail address of person responsible for this SDS : edwin.varela@kavokerrgroup.com

Emergency telephone number (with hours of operation) : CHEMTREC® (24 hours) U.S. : 1-800-424-9300  International: +1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health effects are based on the uncured material.

Classification of the substance or mixture:

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 5.5%

GHS label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : Causes eye irritation.
May cause an allergic skin reaction.
May damage the unborn child.
Suspected of damaging fertility.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Section 2. Hazards identification

Response
IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage
Store locked up.

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

Hazards not otherwise classified
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.

Product code
Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Other names</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylate resin</td>
<td></td>
<td>60 - 100</td>
<td></td>
</tr>
<tr>
<td>dibutyl phthalate</td>
<td>dibutyl phthalate</td>
<td>5 - 10</td>
<td>84-74-2</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>2-hydroxyethyl methacrylate</td>
<td>5 - 10</td>
<td>868-77-9</td>
</tr>
<tr>
<td>triclosan</td>
<td>triclosan</td>
<td>0.1 - 1</td>
<td>3380-34-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 4. First aid measures

Description of necessary first aid measures

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.

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

Skin contact
No special measures required. In case of contact, immediately flush skin with plenty of water. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
Causes eye irritation.

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

Skin contact
May cause an allergic skin reaction.

Ingestion
May be irritating to mouth, throat and stomach.

Date of issue/Date of revision: 07/15/2014  Date of previous issue: 06/17/2014  Version: 1.01

United States
Section 4. First aid measures

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

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

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

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

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

**Notes to physician**
- In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 extinguishing media**
- In case of fire, use water spray (fog), foam, dry chemical or CO₂.

**Unsuitable extinguishing media**
- 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
  - sulfur oxides
  - halogenated compounds
  - metal oxide/oxides

**Special protective actions 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

For non-emergency personnel: Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely.

For emergency responders: Low release. See also the information in "For non-emergency personnel".

Environmental precautions: Low release. Avoid dispersal of spilled 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

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

Protective measures: 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 in a safe manner.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: 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. Store locked up. 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 unlabeled 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>dibutyl phthalate</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours. ACGIH TLV (United States, 6/2013). TWA: 5 mg/m³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: No special measures are required for small quantities under normal and intended conditions of product use.

Environmental exposure controls: No special measures are required for small quantities under normal and intended conditions of product use.

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.

Eye/face 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

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.

Body protection : No special measures are required for small quantities under normal and intended conditions of product use.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [Paste.]
Color : Various
Odor : Fruity.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.
Boiling point : Not available.
Flash point : Not available.
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 2.5
Solubility : Insoluble in the following materials: cold water and hot water.
Solubility in water : Not available.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
SADT : Not available.
Viscosity : Not available.
Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Keep away from heat. Light.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and reducing materials. Peroxide.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

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>Acrylate resin</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>dibutyl phthalate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;25000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7499 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4230 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>triclosan</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>9300 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3700 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Based on the criteria of the protocol, this product is considered cytotoxic per ISO 10993-5.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>triclosan</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 Percent</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>triclosan</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on the likely routes of exposure
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact
- Causes eye irritation.

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

Skin contact
- May cause an allergic skin reaction.

Ingestion
- May be irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

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

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

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

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

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

Short term exposure
- Potential immediate effects
  - Not available.
- Potential delayed effects
  - Not available.

Long term exposure
- Potential immediate effects
  - Not available.
- Potential delayed effects
  - Not available.

Potential chronic health effects
- Not available.
Section 11. Toxicological information

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

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: May damage the unborn child.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: Suspected of damaging fertility.

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>14260.5 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>Acute EC50 3.4 µg/l Marine water</td>
<td>Algae - Gymnodinium breve</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2990 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 480 µg/l Fresh water</td>
<td>Fish - Lepomis macrourus - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 210 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 500 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 25 µg/l Fresh water</td>
<td>Fish - Danio rerio - Embryo</td>
<td>5 weeks</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 227000 µg/l Fresh water</td>
<td>Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>Acute EC50 0.7 µg/l Fresh water</td>
<td>Algae - Scenedesmus subspicatus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 62.5 µg/l Fresh water</td>
<td>Aquatic plants - Lemna gibba</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 0.18 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute IC50 0.53 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 91.3 µg/l Marine water</td>
<td>Crustaceans - Ampelisca abdita</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.25 ppm Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.2 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 18 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 15.1 µg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>35 days</td>
</tr>
</tbody>
</table>

Persistence and degradability

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>301C Ready Biodegradability - Modified MITI Test (l)</td>
<td>92 to 100 % - 14 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>-</td>
<td>-</td>
<td>Readily</td>
</tr>
</tbody>
</table>

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>4.46</td>
<td>165.96</td>
<td>low</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate</td>
<td>0.42</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>triclosan</td>
<td>4.7</td>
<td>4157</td>
<td>high</td>
</tr>
</tbody>
</table>

Mobility in soil

- Soil/water partition coefficient (K_{oc}): Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester</td>
<td>84-74-2</td>
<td>Listed</td>
<td>U069</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN3077</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibutyl phthalate), Marine pollutant (dibutyl phthalate)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibutyl phthalate, triclosan). Marine pollutant (dibutyl phthalate, triclosan)</td>
<td>Environmentally hazardous substance, solid, n.o.s. (dibutyl phthalate, triclosan)</td>
</tr>
</tbody>
</table>

Transport hazard class(es)

- 9

Packing group

- III

Environmental hazards

- Yes.

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United States
Section 14. Transport information

<table>
<thead>
<tr>
<th>Additional information</th>
<th>Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.</th>
<th>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reportable quantity</td>
<td>125 lbs / 56.75 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</td>
<td>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
</tr>
<tr>
<td>Limited quantity</td>
<td>Yes.</td>
<td>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
</tr>
<tr>
<td>Special provisions</td>
<td>8, 146, 335, A112, B54, B120, IB8, IP3, N20, T1, TP33</td>
<td><strong>Emergency schedules (EmS)</strong> F-A, S-F <strong>Special provisions</strong> 274, 335, 966, 967</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Passenger and Cargo Aircraft</strong> <strong>Cargo Aircraft Only</strong> Quantity limitation: 400 kg Packaging instructions: 956 <strong>Limited Quantities - Passenger Aircraft</strong> Quantity limitation: 30 kg Packaging instructions: Y956 <strong>Special provisions</strong> A97, A158, A179</td>
</tr>
</tbody>
</table>

**Special precautions for user** : Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)</td>
<td>Listed</td>
</tr>
<tr>
<td>Clean Air Act Section 602 Class I Substances</td>
<td>Not listed</td>
</tr>
<tr>
<td>Clean Air Act Section 602 Class II Substances</td>
<td>Not listed</td>
</tr>
<tr>
<td>DEA List I Chemicals (Precursor Chemicals)</td>
<td>Not listed</td>
</tr>
<tr>
<td>DEA List II Chemicals (Essential Chemicals)</td>
<td>Not listed</td>
</tr>
<tr>
<td>SARA 302/304</td>
<td>Composition/information on ingredients</td>
</tr>
</tbody>
</table>

No products were found.
## Section 15. Regulatory information

**SARA 304 RQ**: Not applicable.

**SARA 311/312**
- Classification: Immediate (acute) health hazard
- Delayed (chronic) health hazard

### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylate resin dibutyl phthalate</td>
<td>60 - 100</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>2-hydroxyethyl methacrylate triclosan</td>
<td>5 - 10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>0.1 - 1</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

### SARA 313

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>84-74-2</td>
<td>5 - 10</td>
<td></td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts**: The following components are listed: DIBUTYL PHTHALATE

**New York**: The following components are listed: Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester

**New Jersey**: The following components are listed: DI-N-BUTYL PHTHALATE; 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER

**Pennsylvania**: The following components are listed: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER; HALOETHERS

### California Prop. 65

**WARNING**: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

### Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

- **Health**: 2
- **Flammability**: 0
- **Physical hazards**: 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.
Section 16. Other information

National Fire Protection Association (U.S.A.)

Flammability

Health

Instability/Reactivity

Special

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision : 07/15/2014
Date of previous issue : 06/17/2014
Version : 1.01
Prepared by : IHS

Key to abbreviations

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
UN = United Nations

References

HCS (U.S.A.)- Hazard Communication Standard
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.
Section 1. Identification

GHS product identifier : TempSpan® Transparent Temporary Cement - Catalyst
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)
Area of application : Professional applications.

Manufacturer
: Pentron Clinical
1717 West Collins Avenue
Orange, CA  92867-5422
Telephone no.: 1-203-265-7397, Toll Free: 1-800-551-0283

e-mail address of person responsible for this SDS : edwin.varela@kavokerrgroup.com

Emergency telephone number (with hours of operation) : CHEMTREC® (24 hours) U.S. : 1-800-424-9300  International: +1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status
: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Health effects are based on the uncured material.

Classification of the substance or mixture
: SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 3%

GHS label elements

Hazard pictograms
: 

Signal word
: Danger
Section 2. Hazards identification

Hazard statements:
- Causes serious eye damage.
- Causes skin irritation.
- May damage the unborn child.
- Suspected of damaging fertility.
- Suspected of causing cancer.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
Prevention:
- Wear protective gloves. Wear eye or face protection. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response:
- Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage:
- Store locked up.

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

Hazards not otherwise classified:
- 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.
- Product code: Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Other names</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylate resin</td>
<td>Not available.</td>
<td>60 - 100</td>
<td>-</td>
</tr>
<tr>
<td>dibutyl phthalate</td>
<td>dibutyl phthalate</td>
<td>10 - 30</td>
<td>84-74-2</td>
</tr>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>α,α-dimethylbenzylhydroperoxide</td>
<td>1 - 5</td>
<td>80-15-9</td>
</tr>
<tr>
<td>cumene</td>
<td>cumene</td>
<td>0.1 - 1</td>
<td>98-82-8</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures:

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.

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

Skin contact:
- No special measures required. In case of contact, immediately flush skin with plenty of water. Get medical attention if symptoms occur.
Section 4. First aid measures

**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.

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

**Potential acute health effects**
- **Eye contact**: Causes serious eye damage.
- **Inhalation**: May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- **Skin contact**: Causes skin irritation.
- **Ingestion**: May cause burns to mouth, throat and stomach.

**Over-exposure signs/symptoms**
- **Eye contact**: Adverse symptoms may include the following:
  - pain
  - watering
  - redness
- **Inhalation**: Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
- **Skin contact**: Adverse symptoms may include the following:
  - pain or irritation
  - redness
  - blistering may occur
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations
- **Ingestion**: Adverse symptoms may include the following:
  - stomach pains
  - reduced fetal weight
  - increase in fetal deaths
  - skeletal malformations

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

**Notes to physician**
- In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- In case of major fire and large quantities: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 extinguishing media**: In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- **Unsuitable extinguishing media**: Do not use water jet.

**Specific hazards arising from the chemical**
- **Hazardous thermal decomposition products**: Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- **Decomposition products may include the following materials**: carbon dioxide, carbon monoxide, nitrogen oxides, metal oxide/oxides.

**Special protective actions 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**
- **For non-emergency personnel**: Low release. For professional use only. Handling of product in very small amounts or in situations where release is highly unlikely.
- **For emergency responders**: Low release. See also the information in "For non-emergency personnel".

**Environmental precautions**: Low release. Avoid dispersal of spilled 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). Water polluting material. May be harmful to the environment if released in large quantities.

**Methods and materials for containment and cleaning up**
- **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**
- **Protective measures**: 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 in a safe manner.
- **Advice on general occupational hygiene**: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities:
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. Store locked up. 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 unlabeled 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>dibutyl phthalate</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 6/2013). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>AIHA WEEL (United States, 10/2011). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 1 ppm 8 hours.</td>
</tr>
<tr>
<td>cumene</td>
<td>NIOSH REL (United States, 10/2013). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV (United States, 6/2013). TWA: 245 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 2/2013). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 245 mg/m³ 8 hours.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: No special measures are required for small quantities under normal and intended conditions of product use.

Environmental exposure controls: No special measures are required for small quantities under normal and intended conditions of product use.

Individual protection measures

Hygiene measures: No special measures are required for small quantities under normal and intended conditions of product use.

Eye/face 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Date of issue/Date of revision: 07/15/2014
Date of previous issue: 06/17/2014
Version: 1.01

United States
Section 8. Exposure controls/personal protection

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.

Body protection: No special measures are required for small quantities under normal and intended conditions of product use.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance
- Physical state: Solid. [Paste.]
- Color: Various
- Odor: Fruity.

Body protection: No special measures are required for small quantities under normal and intended conditions of product use.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: No special measures are required for small quantities under normal and intended conditions of product use.

Section 9. Physical and chemical properties

Appearance
- Physical state: Solid. [Paste.]
- Color: Various
- Odor: Fruity.
- Odor threshold: Not available.
- pH: Not available.
- Melting point: Not available.
- Boiling point: Not available.
- Flash point: Not available.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not available.
- Lower and upper explosive (flammable) limits: Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Relative density: 2.5
- Solubility: Insoluble in the following materials: cold water and hot water.
- Solubility in water: Not available.
- Partition coefficient: n-octanol/water: Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- SADT: Not available.
- Viscosity: Not available.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

- Under normal conditions of storage and use, hazardous polymerization will not occur.
Section 10. Stability and reactivity

Conditions to avoid : Keep away from heat. Light.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials and reducing materials. Amines

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

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>Acrylate resin</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>dibutyl phthalate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>α,α-dimethylbenzyl</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7499 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>hydroperoxide</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>500 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>cumene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>382 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>39000 mg/m³</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>hydroperoxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>cumene</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>86 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Conclusion/Summary : Based on the criteria of the protocol, this product is considered cytotoxic per ISO 10993-5.

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>hydroperoxide</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>cumene</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>86 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 10 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene</td>
<td>-</td>
<td>2B</td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive toxicity

Not available.

Teratogenicity

Not available.
Section 11. Toxicological information

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>cumene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation and Narcotic effects</td>
</tr>
<tr>
<td>cumene</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined blood system, kidneys and liver</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined blood system, kidneys and liver</td>
</tr>
<tr>
<td>cumene</td>
<td>Category 2</td>
<td>Not determined</td>
<td>Not determined blood system, kidneys and liver</td>
</tr>
</tbody>
</table>

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation: May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Causes skin irritation.

Ingestion: May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

Skin contact: Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

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

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

Date of issue/Date of revision : 07/15/2014  Date of previous issue : 06/17/2014  Version : 1.01  B/14
Section 11. Toxicological information

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects
Not available.

General : May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : May damage the unborn child.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : Suspected of damaging fertility.

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>5469.9 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>10101 mg/kg</td>
</tr>
<tr>
<td>Inhalation (dusts and mists)</td>
<td>10.1 mg/l</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>Acute EC50 3.4 µg/l Marine water</td>
<td>Algae - Gymnodinium breve</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2990 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 480 µg/l Fresh water</td>
<td>Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 210 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 500 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 25 µg/l Fresh water</td>
<td>Fish - Danio rerio - Embryo</td>
<td>5 weeks</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 3.9 mg/l</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2600 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 7400 µg/l Fresh water</td>
<td>Crustaceans - Artemia sp. - Nauplii</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 10600 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2700 µg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>Cumene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute EC50 10600 µg/l Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 10600 µg/l Fresh water</td>
<td>Crustaceans - Artemia sp. - Nauplii</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 10600 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2700 µg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>301E Ready Biodegradability - Modified OECD Screening Test</td>
<td>18 % - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Aquatic half-life</th>
<th>Photolysis</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>α,α-dimethylbenzyl hydroperoxide</td>
<td>-</td>
<td>-</td>
<td>Not readily</td>
</tr>
</tbody>
</table>

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>dibutyl phthalate</td>
<td>4.46</td>
<td>165.96</td>
<td>low</td>
</tr>
<tr>
<td>α,α-dimethylbenzyl hydrogen peroxide</td>
<td>4.16</td>
<td>9</td>
<td>low</td>
</tr>
<tr>
<td>cumene</td>
<td>3.55</td>
<td>94.69</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**: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

**United States - RCRA Toxic hazardous waste "U" List**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester, alpha,,alpha-Dimethylbenzylhydroperoxide (R); Hydroperoxide, 1-methyl-1-phenylethyl- (R)</td>
<td>84-74-2, 80-15-9</td>
<td>Listed, Listed</td>
<td>U069, U096</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN3077</td>
<td>UN3077</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Environmentally hazardous substance, solid, n.o.s. (dibutyl phthalate). Marine pollutant (dibutyl phthalate) RQ (dibutyl phthalate, α,α-dimethylbenzyl hydroperoxide)</td>
<td>Environmentally HAZARDOUS SUBSTANCE, SOLID, N.O.S. (dibutyl phthalate, α,α-dimethylbenzyl hydroperoxide). Marine pollutant (dibutyl phthalate, α,α-dimethylbenzyl hydroperoxide)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
## Section 14. Transport information

<table>
<thead>
<tr>
<th>Packing group</th>
<th>III</th>
<th>III</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental hazards</td>
<td>Yes.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>Additional information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.</td>
<td>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
<td>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</td>
<td></td>
</tr>
<tr>
<td><strong>Reportable quantity</strong></td>
<td>83.333 lbs / 37.833 kg</td>
<td><strong>Emergency schedules (EmS)</strong></td>
<td>F-A, S-F</td>
</tr>
<tr>
<td><strong>Limited quantity</strong></td>
<td>Yes.</td>
<td><strong>Special provisions</strong></td>
<td>274, 335, 966, 967</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Passenger and Cargo Aircraft</strong></td>
<td>Quantity limitation: 400 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Packaging instructions: 956</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Cargo Aircraft Only</strong></td>
<td>Quantity limitation: 400 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Packaging instructions: 956</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Limited Quantities - Passenger Aircraft</strong></td>
<td>Quantity limitation: 30 kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Packaging instructions: Y956</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Special provisions</strong></td>
<td>A97, A158, A179</td>
</tr>
</tbody>
</table>

### Special precautions for user

- **Transport within user's premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**: Not available.

## Section 15. Regulatory information

<table>
<thead>
<tr>
<th>U.S. Federal regulations</th>
<th>TSCA 8(a) PAIR: 2-phenylpropan-2-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States inventory (TSCA 8b)</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Clean Water Act (CWA) 307: dibutyl phthalate</td>
<td></td>
</tr>
<tr>
<td>Clean Water Act (CWA) 311: dibutyl phthalate</td>
<td></td>
</tr>
</tbody>
</table>

### Clean Air Act

- **Section 112 (b) Hazardous Air Pollutants (HAPs)**: Listed
- **Section 602 Class I Substances**: Not listed
- **Section 602 Class II Substances**: Not listed

### DEA List I Chemicals

- **(Precursor Chemicals)**: Not listed

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**Date of issue/Date of revision**: 07/15/2014  
**Date of previous issue**: 06/17/2014  
**Version**: 1.01  
**United States**
# Section 15. Regulatory information

## DEA List II Chemicals (Essential Chemicals)
- Not listed

## SARA 302/304
- **Composition/information on ingredients**
  - No products were found.

## SARA 304 RQ
- Not applicable.

## SARA 311/312
- **Classification**
  - Immediate (acute) health hazard
  - Delayed (chronic) health hazard

### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylate resin; dibutyl phthalate; α,α-dimethylbenzyl hydroperoxide; cumene</td>
<td>60 - 100</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>1 - 5</td>
<td>Yes.</td>
<td>No.</td>
<td>Yes.</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td></td>
<td>0.1 - 1</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

## SARA 313

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier notification</td>
<td>dibutyl phthalate; α,α-dimethylbenzyl hydroperoxide</td>
<td>84-74-2</td>
<td>10 - 30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80-15-9</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

## State regulations

### Massachusetts
- The following components are listed: DIBUTYL PHTHALATE; CUMENE HYDROPEROXIDE

### New York
- The following components are listed: Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid, dibutyl ester; Cumene hydroperoxide technical pure; Hydroperoxide, 1-methyl-1-phenylethyl--; Cumene; Benzene, 1-methyl-1-phenylethyl-

### New Jersey
- The following components are listed: DI-N-BUTYL PHTHALATE; 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER; CUMENE HYDROPEROXIDE; alpha, alpha-DIMETHYL BENZYL HYDROPEROXIDE; CUMENE; BENZENE, (1-METHYLETHYL)-

### Pennsylvania
- The following components are listed: 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER; HYDROPEROXIDE, 1-METHYL-1-PHENYLETHYL; BENZENE, (1-METHYLETHYL)-

### California Prop. 65
- **WARNING**: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibutyl phthalate</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>Yes.</td>
</tr>
<tr>
<td>cumene</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>
Section 16. Other information

Hazardous Material Information System (U.S.A.)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Instability/Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Special</td>
<td></td>
</tr>
</tbody>
</table>

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

| Date of issue/Date of revision | 07/15/2014 |
| Date of previous issue         | 06/17/2014 |
| Version                        | 1.01       |
| Prepared by                    | IHS        |
| Key to abbreviations           | 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 |
|                                | UN = United Nations |

References

- HCS (U.S.A.)- Hazard Communication Standard
- International transport regulations

▶ Indicates information that has changed from previously issued version.

Notice to reader
Section 16. Other information

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.