This SDS packet was issued with item:
076470108

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

076469902 076469910 076469928 076469936 076469944 076469951 076469969 076470009 076470017 076470025
076470033 076470082 076470090 076470116 076470157 076470165 076470173 076470181 076470223 076470231
076470249 076470256 076470298 076470306 076470314 076470322
SECTION 1
PRODUCT AND COMPANY INFORMATION

Product name: FIBREKLEER® 4X
Uses/Application: Dental Product
Manufacturer: Pentron Clinical
1717 West Collins Avenue
Orange, CA 92867
USA
Telephone.: 1-800-KERR-123
Date Prepared: January 2011
Date Revised: N/A

SECTION 2
COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS N.</th>
<th>PEL</th>
<th>TLV</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>NE</td>
<td>5 mg/m³</td>
<td>30-60</td>
</tr>
<tr>
<td>Ytterbium trifluoride</td>
<td>13760-80-0</td>
<td>2.5 mg/m³</td>
<td>2.5 mg/m³</td>
<td>10-30</td>
</tr>
</tbody>
</table>

NE – Not Established.

Other:
Monomer and Stabilizer

SECTION 3
Hazard Identification

OHSA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and

Hazard Statements: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Precautions: No known significant effects or critical hazards. Avoid prolong contact with eyes, skin and clothing.

Routes of Entry: Dermal Contact. Eye Contact.
SECTION 4
PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid – Cured fiber reinforced post (Rod)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Color</td>
<td>Clear</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling/condensation point</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>2</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not Soluble</td>
</tr>
</tbody>
</table>

SECTION 5
FIRE AND EXPLOSION HAZARD DATA

Flammability of the product: No specific fire or explosion hazard.

Extinguishing Media:

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Special exposure hazards: 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.

Hazardous thermal decomposition products: Decomposition products may include the following materials: Carbon dioxide, carbon monoxide, halogenated compounds and metal oxide/oxides

Special Fire Fighting Procedures: 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
STABILITY AND REACTIVITY DATA

Stability: The product is stable.

Incompatibility & Reactive (Material to Avoid): Not available

Hazardous Decomposition: Under normal conditions of storage and use, hazardous decomposition will not occurred

Hazardous Polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.
SECTION 7
HEALTH HAZARD DATA

Potential Acute Health Affects:
Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin: No known significant effects or critical hazards.
Eyes: No known significant effects or critical hazards.

Potential chronic health effects:
Chronic effects: No known significant effects or critical hazards.
Target organs: No known significant effects or critical hazards.
Carcinogenicity Classification: 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: No known significant effects or critical hazards.

SECTION 8
EMERGENCY FIRST AID PROCEDURES

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms persist.
Eyes: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.
Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.
Note 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.

SECTION 9
CONTROL MEASURES

Engineering measures: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Work/Hygiene Practices: Handle in accordance with good personal hygiene and safety practices. These practices include avoiding unnecessary exposure.
### Personal Protection:

**Hands:** If a risk assessment indicates gloves are necessary, Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products.

**Eye Protection:** If risk assessment indicates safety eyewear is needed, safety eyewear complying with an approved standard should be used to avoid exposure to liquid splashes, mists or dusts.

**Respiratory:** If a risk assessment indicates that respirators are needed, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard 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.

**Skin:** Based on the risks assessment, personal protective equipment for the body should be selected based on the task being performed and recommendations.

**Environmental exposure controls:** 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.

---

### SECTION 10

**PRECAUTIONS FOR HANDLING & STORAGE**

**Precautions to be taken in Handling:**
Wash hands before eating, drinking, and chewing gum. Keep in the original container.

**Precautions to be taken for storage:**
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area and away from 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. Containers that have been open must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

**Other Precautions:** Keep out of reach of children. Avoid skin and eye contact. Avoid contamination of food.

---

### SECTION 11

**ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
### Environmental precautions:
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Product is toxic to aquatic organisms. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods for cleaning up:
#### Small spills:
Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

#### Large spills:
Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

### SECTION 12
**DISPOSAL CONSIDERATION**

<table>
<thead>
<tr>
<th>Waste Disposal:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.</td>
</tr>
</tbody>
</table>

### SECTION 13
**TRANSPORTATION INFORMATION**

<table>
<thead>
<tr>
<th>TDG/IMDG/IATA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not regulated.</td>
</tr>
</tbody>
</table>

### SECTION 14
**REGULATORY INFORMATION**

**CALIFORNIA PROPOSITION 65:**

**WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

### SECTION 15
**OTHER INFORMATION**

**HMIS (Hazardous Material Identification System) Rating:**

| Health 2 | Flammability 0 | Physical Hazard 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 MSDSs 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). The customer is responsible for determining the PPE code for this material.

National Fire Protection Association:

Health 2 Flammability 0 Instability 0

Note: 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 : FibreKleer™ 4x™ Fiber Post
Other means of identification : Not available.
Product type : Post

Relevant identified uses of the substance or mixture and uses advised against
Product use : Dental product: Post and Core
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).
Classification of the substance or mixture : TOXIC TO REPRODUCTION (Fertility) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 39.1%

GHS label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : Suspected of damaging fertility.
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.
Response : IF exposed or concerned: Get medical attention.
Storage : Store locked up.
Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazard not otherwise classified : None known.

Date of issue/Date of revision : 02/26/2015   Date of previous issue : No previous validation   Version : 1
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>Poly(oxy-1,2-ethanediyl), α,α’-[(1-methylethylidene)di-4,1-phenylene]bis[ω-[(2- methyl-1-oxo-2-propen-1-yl)oxy]-1,6-hexanediyl bismethacrylate</td>
<td>Not available.</td>
<td>5-10</td>
<td>41637-38-1</td>
</tr>
<tr>
<td>1,6-hexanediyl bismethacrylate</td>
<td></td>
<td>5-10</td>
<td>6606-59-3</td>
</tr>
<tr>
<td>Iodonium, [4-[(2-hydroxytetradecyl)oxy]phenyl] phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (1:1)</td>
<td>Not available.</td>
<td>1-5</td>
<td>139301-16-9</td>
</tr>
<tr>
<td>2-[(2-methyl-1-oxooallyl)oxy]ethyl 1,3-dihydro-1, 3-dioxoisobenzofuran-5-carboxylate</td>
<td>2-[(2-methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1, 3-dioxoisobenzofuran-5-carboxylate</td>
<td>0.1-1</td>
<td>70293-55-9</td>
</tr>
<tr>
<td>diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</td>
<td>diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</td>
<td>0.1-1</td>
<td>75980-60-8</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.
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 : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms
Eye contact : No specific data.
Section 4. First aid measures

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

**Skin contact**
- Adverse symptoms may include the following:
  - 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

**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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Notes to physician**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- No specific treatment.

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

**Skin contact**
- Ingestion
- Inhalation

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

**Specific 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 5. Fire-fighting measures

**Extinguishing media**
- Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
- 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
  - 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).
Section 6. Accidental release measures

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: None.

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: safety glasses with side-shields.

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.
Section 8. Exposure controls/personal protection

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid. [Post]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Various</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Vapor pressure**
- Not available.

**Vapor density**
- Not available.

**Relative density**
- 2

**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**
- No specific data.

**Incompatible materials**
- No specific data.

**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
Not available.

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

Irritation/Corrosion
Not available.

Sensitization
Not available.

Conclusion/Summary
Skin : Not sensitizing

Mutagenicity
Not available.

Conclusion/Summary
Not mutagenic in Ames test.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

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>Poly(oxy-1,2-ethanediyl), α,α'-(1-methylethylidene)di-4,1-phenylene]bis[ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-1,6-hexanediyl bismethacrylate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>2-[(2-methyl-1-oxoallyl)oxy]ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate</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 : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Section 11. Toxicological information

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

**Skin contact**: Adverse symptoms may include the following:
- 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.

**General**
- 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.

**Numerical measures of toxicity**

**Acute toxicity estimates**
Not available.

---

Section 12. Ecological information

**Toxicity**
Not available.

**Persistence and degradability**
Not available.

**Bioaccumulative potential**

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*Date of issue/Date of revision*: 02/26/2015  
*Date of previous issue*: No previous validation  
*Version*: 1
Section 12. Ecological information

<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>Poly(oxy-1,2-ethanediyl), α,α'-[(1-methylethylidene)di-4,1-phenylene]bis[ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide</td>
<td>3.43 to 5.62</td>
<td>2372</td>
<td>high</td>
</tr>
<tr>
<td></td>
<td>53 to 72</td>
<td></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.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>-</td>
<td>-</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

U.S. Federal regulations

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 304 RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylene oxide</td>
<td>&lt;0.0078</td>
<td>Yes</td>
<td>1000</td>
<td>10</td>
</tr>
</tbody>
</table>

SARA 304 RQ: 142450.1 lbs / 64672.4 kg

SARA 311/312

Classification: 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>Poly(oxy-1,2-ethanediyl), α,α’-[(1-methylene)di-4,1-phenylene]bis[ω-[(2-methyl-1-oxo-2-propen-1-yl)oxy]-1,6-hexanediyl] bismethacrylate iodonium, 4-{[(2-hydroxytetradecyl)oxy]phenyl}phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (1:1) 2-{(2-methyl-1-oxoallyl)oxy}ethyl 1,3-dihydro-1,3-dioxoisobenzofuran-5-carboxylate diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide</td>
<td>5-10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td></td>
<td>0.1-1</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>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements Iodonium, [4-{[(2-hydroxytetradecyl)oxy]phenyl}phenyl-, (OC-6-11)-hexafluoroantimonate(1-) (1:1)</td>
<td>139301-16-9</td>
<td>1-5</td>
</tr>
</tbody>
</table>

Supplier notification: Not applicable.

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

Date of issue/Date of revision: 02/26/2015  Date of previous issue: No previous validation  Version: 1  9/11

United States

Obtained by Global Safety Management, www.globalsafetynet.com (877) 683-7460
Section 15. Regulatory information

Massachusetts: The following components are listed: MINERAL WOOL FIBER
New York: None of the components are listed.
New Jersey: The following components are listed: FLUORIDES
Pennsylvania: None of the components are listed.

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>ethylene oxide</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Section 16. Other information

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

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>0</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.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</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: 02/26/2015
Date of previous issue: No previous validation
Version: 1
Prepared by: IHS
Section 16. Other information

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

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.