1. Identification

Product identifier: First Quarter™, First Half™, Start VPS™

Other means of identification
- Document number: SDS-007-ZD Rev. A
- Recommended use: Impression material.
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Supplier
- Company name: Danville Materials
- Address: 2875 Loker Avenue East, Carlsbad, CA 92010
- Telephone: 1-800-827-7940
- Customer Service Contact: danvillecs@zestdent.com
- Website: www.zestdent.com

Emergency telephone number: 800-451-8346 / 760-602-8703

2. Hazard(s) identification

Physical hazards: Not classified.
Health hazards: Sensitization, skin (Category 1)
Environmental hazards: Hazardous to the aquatic environment, acute hazard (Category 1)
- Hazardous to the aquatic environment, long-term hazard (Category 2)
OSHA defined hazards: Not classified.

Label elements

Signal word: Warning
Hazard statement: May cause an allergic skin reaction. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement
- Prevention: Avoid breathing mist or vapor. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Avoid release to the environment.
- Response: If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Collect spillage.
- Storage: Store away from incompatible materials.
- Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information: None.

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<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite</td>
<td>14464-46-1</td>
<td>20 - 45</td>
</tr>
<tr>
<td>Filler</td>
<td>Proprietary</td>
<td>&lt; 20</td>
</tr>
<tr>
<td>Silicon compound</td>
<td>Proprietary</td>
<td>&lt; 6</td>
</tr>
<tr>
<td>Siloxane compound</td>
<td>Proprietary</td>
<td>0.2 - 2</td>
</tr>
</tbody>
</table>

**Composition comments**

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret. All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

**4. First-aid measures**

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

**Eye contact**
Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**
Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction. Dermatitis. Rash.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

**5. Fire-fighting measures**

**Suitable extinguishing media**

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
Contains one or more components that will burn if involved in a fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

**Small Spills:** Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

**Precautions for safe handling**

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Persons susceptible to allergic reactions should not handle this product. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

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

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</th>
<th>Value</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filler</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
</tr>
<tr>
<td>Silicon compound</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Value</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite (CAS 14464-46-1)</td>
<td>PEL</td>
<td>0.05 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-3 (29 CFR 1910.1000)</th>
<th>Value</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite (CAS 14464-46-1)</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
</tr>
<tr>
<td>Silicon compound</td>
<td>TWA</td>
<td>1.2 mppcf</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>2.4 mppcf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Value</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cristobalite (CAS 14464-46-1)</td>
<td>TWA</td>
<td>0.025 mg/m3</td>
</tr>
<tr>
<td>Silicon compound</td>
<td>TWA</td>
<td>0.025 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards</th>
<th>Value</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon compound</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
</tr>
</tbody>
</table>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply or an emergency shower.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear approved chemical safety goggles. Face shield is recommended.

**Skin protection**

- **Hand protection**
  
  Wear appropriate chemical resistant gloves. Nitrile or butyl rubber gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- **Other**
  
  Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

None required where adequate ventilation conditions exist. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Check with respiratory protective equipment suppliers.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.
9. Physical and chemical properties

Appearance
- Physical state: Paste.
- Form: Paste.
- Color: Not available.
- Odor: Not available.
- Odor threshold: Not available.
- pH: Not applicable.
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: Not available.
- Flash point: Does not flash.
- Evaporation rate: Not available.
- Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.
- Vapor pressure: Not available.
- Vapor density: Not available.
- Relative density: Not available.
- Solubility(ies)
  - Solubility (water): Not available.
  - Partition coefficient (n-octanol/water): Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Viscosity: > 20.5 mm²/s
- Viscosity temperature: 104 °F (40 °C)

Other information
- Explosive properties: Not explosive.
- Oxidizing properties: Not oxidizing.

10. Stability and reactivity

Reactivity
- The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
- Material is stable under normal conditions.

Possibility of hazardous reactions
- No dangerous reaction known under conditions of normal use.

Conditions to avoid
- Contact with incompatible materials.

Incompatible materials
- Strong oxidizing agents.

Hazardous decomposition products
- Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Silicon oxide fumes.

11. Toxicological information

Information on likely routes of exposure
- Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.
- Skin contact: May cause an allergic skin reaction.
- Eye contact: Direct contact with eyes may cause temporary irritation.
- Ingestion: May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics
- Direct contact with eyes may cause temporary irritation. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

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SDS US 4 / 8
Acute toxicity
Not expected to be acutely toxic.

Skin corrosion/irritation
Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
May cause an allergic skin reaction.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
Due to the form of the product, exposure to the potentially carcinogenic components is not expected.

IARC Monographs. Overall Evaluation of Carcinogenicity
Cristobalite (CAS 14464-46-1) 1 Carcinogenic to humans.
Silicon compound (CAS Proprietary) 1 Carcinogenic to humans.

NTP Report on Carcinogens
Cristobalite (CAS 14464-46-1) Known To Be Human Carcinogen.
Silicon compound (CAS Proprietary) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Cristobalite (CAS 14464-46-1) Cancer
Filler (CAS Proprietary) Cancer
Silicon compound (CAS Proprietary) Cancer

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged exposure may cause chronic effects.

Further information
Symptoms may be delayed.

12. Ecological information

Ecotoxicity
Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Persistence and degradability
The product contains inorganic compounds which are not biodegradable.

Bioaccumulative potential
No data available on bioaccumulation.

Mobility in soil
No data available for this product.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
UN number UN3082
UN proper shipping name Environmentally hazardous substances, liquid, n.o.s. (Palladium compound)
Transport hazard class(es)

Class 9
Subsidiary risk -
Label(s) 9
Packing group III
Environmental hazards
Marine pollutant Yes

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

Special provisions
8, 146, 335, IB3, T4, TP1, TP29

Packaging exceptions 155
Packaging non bulk 203
Packaging bulk 241

IATA
UN number UN3082
UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Palladium compound)

IMDG
UN number UN3082
UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Palladium compound)

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Cristobalite (CAS 14464-46-1) Cancer
Filler (CAS Proprietary) Cancer
Silicon compound (CAS Proprietary) Cancer
Cristobalite (CAS 14464-46-1) lung effects
Filler (CAS Proprietary) lung effects
Silicon compound (CAS Proprietary) lung effects
Cristobalite (CAS 14464-46-1) immune system effects
Filler (CAS Proprietary) immune system effects
Silicon compound (CAS Proprietary) immune system effects
Cristobalite (CAS 14464-46-1) kidney effects
Filler (CAS Proprietary) kidney effects
Silicon compound (CAS Proprietary) kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous chemical
Classified hazard categories
Respiratory or skin sensitization
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
US. Massachusetts RTK - Substance List
Cristobalite (CAS 14464-46-1)
Silicon compound (CAS Proprietary)
US. New Jersey Worker and Community Right-to-Know Act
Cristobalite (CAS 14464-46-1)
Silicon compound (CAS Proprietary)
US. Pennsylvania Worker and Community Right-to-Know Law
Cristobalite (CAS 14464-46-1)
Filler (CAS Proprietary)
Silicon compound (CAS Proprietary)
US. Rhode Island RTK
Cristobalite (CAS 14464-46-1)
Silicon compound (CAS Proprietary)

California Proposition 65
WARNING: This product can expose you to Silicon compound, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance
Silicon compound (CAS Proprietary) Listed: October 1, 1988
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Cristobalite (CAS 14464-46-1)
Silicon compound (CAS Proprietary)

16. Other information, including date of preparation or last revision
Issue date 27-February-2018
Revision date -
Version # 01
HMIS® ratings Health: 2
Flammability: 1
Physical hazard: 0
NFPA ratings

First Quarter™, First Half™, Start VPS™  SDS US 941566 Version #: 01 Revision date: - Issue date: 27-February-2018
Danville Materials cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.