SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1. Product Identifier
Product Form: Mixture
Product Name and Code:
- Duracrete II 190
- Duracrete II FR 190FR
- Duracrete II VOFT 195
- Duracrete II FT 197
- Duracrete II AG 191AG

1.2. Intended Use of the Product
Use of the substance/mixture: Cementitious Repair
Use of the Substance/Mixture: For professional use only.

1.3. Name, Address, and Telephone of the Responsible Party
Company
Kaufman Products, Inc.
3811 Curtis Avenue
Baltimore, MD 21226-1131
410-354-8600

http://www.kaufmanproducts.net/

1.4. Emergency Telephone Number
Emergency Number: 800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
- Skin Irrit. 2 H315
- Eye Irrit. 2A H319
- Skin Sens. 1 H317
- Acute Toxicity, Inhalation 5 H333
- Carc. 1A H350
- STOT SE 3 H335
- STOT RE 1 H372
2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US):

GHS07
GHS08

Signal Word (GHS-US):
Danger

Hazard Statements (GHS-US):
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H350 - May cause cancer (Inhalation)
H372 - Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation)

Precautionary Statements (GHS-US):
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe dust, fume
P261 - Avoid breathing dust/fume
P264 - Wash exposed areas thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear eye protection, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P312 - Call a POISON CENTER or doctor if you feel unwell
P321 - Specific treatment (see Section 4)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing
P362+P364 - Take off contaminated clothing and wash it before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to local, regional, national, and international regulations

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2.3. Other Hazards
Other Hazards Not Contributing to the Classification: Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C, it can change to a form of crystalline silica known as tripoli, and if crystalline silica (quartz) is heated to more than 1470°C, it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for crystalline silica as tripoli and cristobalite is one-half of the OSHA PEL for crystalline silica (quartz).

2.4. Unknown Acute Toxicity (GHS-US)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement, portland, chemicals</td>
<td>(CAS No) 65997-15-1</td>
<td>20-30</td>
<td>Skin Irrit. 2, H315, Eye Irrit. 2A, H319, Skin Sens. 1, H317, STOT SE 3, H335</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>55-80</td>
<td>Carc. 1A, H350, STOT SE 3, H335, STOT RE 1, H372</td>
</tr>
<tr>
<td>Cement, alumina, chemicals</td>
<td>(CAS No) 65997-16-2</td>
<td>10-20</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>Coal Fired Fly Ash Bi-Product</td>
<td>(CAS No) 68131-74-8</td>
<td>0-8</td>
<td>Acute Tox. 5 (Inhalation), H333</td>
</tr>
<tr>
<td>Ceramic Microspheres</td>
<td>(CAS No) 66402-68-4</td>
<td>0-5</td>
<td>Acute Tox. 5 (Inhalation), H333</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: If medical advice is needed, have product container or label at hand.
First-aid Measures After Inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
First-aid Measures After Skin Contact: Rinse immediately with plenty of water. Gently wash with plenty of soap and water. Obtain medical attention if irritation persists.
First-aid Measures After Eye Contact: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Seek medical attention if material is embedded in eye. If eye irritation persists: Get medical advice and attention.
First-aid Measures After Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/Injuries: Repeated or prolonged inhalation may damage lungs. May cause an allergic skin reaction. Irritation to eyes, skin and respiratory tract. Causes damage to organs through prolonged or repeated exposure. Causes damage to organs.
Symptoms/Injuries After Inhalation: Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/Injuries After Skin Contact: Causes skin irritation. May cause an allergic skin reaction.
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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/Injuries After Eye Contact: Causes eye irritation.
Symptoms/Injuries After Ingestion: Abdominal pain.
Chronic Symptoms: Respiratory difficulties. May cause cancer. Repeated or prolonged exposure to respirable crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not flammable.
Explosion Hazard: No particular fire or explosion hazard.
Reactivity: Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, may cause fire. It dissolves in hydrofluoric acid and may produce a corrosive gas (silicon tetrafluoride).

5.3. Advice for Firefighters
Precautionary Measures Fire: Fight fire with normal precautions from a reasonable distance.
Firefighting Instructions: Not flammable. To prevent volatilization of resin components, cool containers with water spray.
Protection During Firefighting: Use normal individual fire protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Do not breathe dust. Avoid generation of dust during clean-up of spills. Recover the product by vacuuming, shovelling or sweeping. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.

6.1.1. For Non-emergency Personnel
Protective Equipment: Wear suitable protective clothing, gloves and eye/face protection. Use recommended respiratory protection.
Emergency Procedures: Collect as any solid.

6.1.2. For Emergency Responders
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Avoid creating or spreading dust. Contain and collect as any solid.

6.2. Environmental Precautions
None known.

6.3. Methods and Material for Containment and Cleaning Up
For Containment: Contain and collect as any solid.
Methods for Cleaning Up: Avoid generation of dust during clean-up of spills. Recover the product by vacuuming, shovelling or sweeping. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.

6.4. Reference to Other Sections See heading 8, Exposure Controls and Personal Protection.
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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Do not breathe dust.


Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink or smoke in areas where product is used.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool place. Keep container tightly closed.

Incompatible Products: Oxidizing agent.

Incompatible Materials: In finely divided state: reacts with (strong) oxidizers such as: hydrofluoric acid. Chlorine trifluoride.

Storing Area: Store in dry, cool area.

Special Rules on Packaging: Keep container closed when not in use.

7.3. Specific End Use(s) Cementitious repair. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>USA ACGIH</th>
<th>USA NIOSH</th>
<th>USA IDLH</th>
<th>USA OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement, portland, chemicals (65997-15-1)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>1 mg/m³</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
<td>ACGIH TWA (mg/m³)</td>
<td>0.025 mg/m³</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.05 mg/m³</td>
</tr>
</tbody>
</table>

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Avoid dust production.


Hand Protection: Cloth gloves.

Eye Protection: Safety glasses.
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Skin and Body Protection: Handle in accordance with good industrial hygiene and safety practice. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Wear suitable protective clothing. Wash contaminated clothing before reuse.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

Consumer Exposure Controls: Do not breathe dust. Wear recommended personal protective equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: Solid
Appearance: Gray Powder.
Odor: Negligible.
Odor Threshold: No data available
pH: 10 - 12
Relative Evaporation Rate (butylacetate=1): No data available
Melting Point: No data available
Freezing Point: No data available
Boiling Point: No data available
Flash Point: No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available
Flammability (solid, gas): No data available
Vapor Pressure: No data available
Relative Vapor Density at 20 °C: No data available
Relative Density: No data available
Specific Gravity: 3.15
Density: No data available
Solubility: Water: 0.1 - 1 %
Log Pow: No data available
Log Kow: No data available
Viscosity, Kinematic: No data available
Viscosity, Dynamic: No data available
Explosive Properties: None known.
Oxidizing Properties: No data available
Explosive Limits: No data available

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9.2. Other Information
No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, may cause fire. It dissolves in hydrofluoric acid and may produce a corrosive gas (silicon tetrafluoride).
10.2 Chemical Stability: Stable under normal temperature and pressure.
10.3 Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.4 Conditions to Avoid: Avoid formation of dust.
10.5 Incompatible Materials: Avoid strong oxidizers.
10.6 Hazardous Decomposition Products: Silicon oxides. Carbon oxides (CO, CO2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects
Acute Toxicity: Not classified

Quartz (14808-60-7)
LD50 Oral Rat > 5000 mg/kg
Skin Corrosion/Irritation: Causes skin irritation. pH: 10 - 12
Serious Eye Damage/Irritation: Causes serious eye irritation. pH: 10 - 12
Respiratory or Skin Sensitization: May cause an allergic skin reaction.
Germ Cell Mutagenicity: Not classified
Carcinogenicity: May cause cancer (Inhalation).

Silica, amorphous (7631-86-9)
IARC group 3

Quartz (14808-60-7)
IARC group 1
National Toxicity Program (NTP) Status Known Human Carcinogens.

Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.
Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

Duracrete II Series Products
Additional information
Repeated or prolonged exposure to respirable crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.
Pre-existing lung diseases such as emphysema or asthma may be aggravated by exposure to dusts. Pulmonary function may be reduced by inhalation of respirable crystalline silica. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.
Accelerated Silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the progression is more rapid.

Acute Silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis can be fatal.

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure. May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes eye irritation.

**Symptoms/Injuries After Ingestion:** Abdominal pain.

**Chronic Symptoms:** Respiratory difficulties. May cause cancer. Repeated or prolonged exposure to respirable crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

**SECTION 12: ECOLOGICAL INFORMATION**

12.1. **Toxicity**
No additional information available

12.2. **Persistence and Degradability**

<table>
<thead>
<tr>
<th>Duracrete II Series Products</th>
<th>Persistence and Degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not readily biodegradable.</td>
</tr>
</tbody>
</table>

12.3. **Bioaccumulative Potential**

<table>
<thead>
<tr>
<th>Duracrete II Series Products</th>
<th>Bioaccumulative Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not expected to bioaccumulate.</td>
</tr>
</tbody>
</table>

12.4. **Mobility in Soil**
No additional information available

12.5. **Other Adverse Effects**
No additional information available

**SECTION 13: DISPOSAL CONSIDERATIONS**

13.1. **Waste treatment methods**
Regional Legislation (waste): Disposal must be done according to official regulations.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

**SECTION 14: TRANSPORT INFORMATION**

14.1. **In Accordance with DOT**
Not regulated for transport

14.2. **In Accordance with IMDG**
Not regulated for transport

14.3. **In Accordance with IATA**
Not regulated for transport
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SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations
Duracrete II Series Products
SARA Section 311/312 Hazard Classes
Immediate (acute) health hazard
Delayed (chronic) health hazard

Cement, portland, chemicals (65997-15-1)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Cement, alumina, chemicals (65997-16-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2 US State Regulations
Quartz (14808-60-7)
U.S. - California - Proposition 65 - Carcinogens List
WARNING: This product contains chemicals known to the State of California to cause cancer.

Cement, portland, chemicals (65997-15-1)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

Quartz (14808-60-7)
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION

Revision date : 12/23/2013
Indication of Changes : Revision date.
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral) Acute toxicity (oral) Category 4
Carc. 1A Carcinogenicity Category 1A
Comb. Dust Combustible Dust
Eye Irrit. 2A Serious eye damage/eye irritation Category 2A
Skin Irrit. 2 Skin corrosion/irritation Category 2
Skin Sens. 1 Skin sensitization Category 1
STOT RE 1 Specific target organ toxicity (repeated exposure) Category 1

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**STOT SE 3** | Specific target organ toxicity (single exposure) Category 3
---|---
H227 | Combustible liquid
H232 | May form combustible dust concentrations in air
H301 | Toxic if swallowed
H302 | Harmful if swallowed
H311 | Toxic in contact with skin
H314 | Causes severe skin burns and eye damage
H315 | Causes skin irritation
H317 | May cause an allergic skin reaction
H318 | Causes serious eye damage
H319 | Causes serious eye irritation
H331 | Toxic if inhaled
H350 | May cause cancer
H351 | Suspected of causing cancer
H372 | Causes damage to organs through prolonged or repeated exposure
H401 | Toxic to aquatic life

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