SAFETY DATA SHEET

Issuing Date 30 May 2015  Revision Date 30 May 2015  Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Portland Cement Based Products

Other means of identification

Synonyms: Vita-Crete Gravel Mix, Vita-Crete High Strength Concrete Mix, Vita-Crete Sand/Grouting Mix, Vita-Crete Mortar Mixes Type M,S,N & O, Vita-Crete Pointing Mortar Mix, Vita-Crete Rapid Hardening Concrete Mix, Vita-Crete Veneer Stone & Brick Mortar Mix, Vita-Crete Block Fill Grout-Coarse & Fine, Vita-Crete Water-Stop Cement, Vita-Crete Rapid Setting Grout, Vita-Crete Concrete Patch, Vita-Crete Underground Utility Mortar.

Recommended use of the chemical and restrictions on use

Recommended Use: Concrete footings, flatwork, set posts, block and brick installation, mortar repairs, stucco/plaster

Uses advised against: No information available

Supplier's details

Supplier Address
Concrete & Mortar Packaging, LLC
dba Vita-Crete
12 South Free Street
Bldg. 4
Milford, MA 01757
Telephone: 1-508-473-1799

Emergency telephone number
Emergency Telephone 1-508-473-1799

2. HAZARDS IDENTIFICATION

Classification

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Category 1A</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity (Repeated Exposure)</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger

Hazard Statements
- Harmful if swallowed
- Causes severe skin burns and eye damage
- May cause cancer
- May cause damage to organs through prolonged or repeated exposure
Vita-Crete  Portland Cement Based Products  Revision Date  30 May 2015

Appearance: Gray or White  Physical State: Coarse Powder  Odor: No information available

Precautionary Statements
Prevention
• Wash face, hands and any exposed skin thoroughly after handling.
• Do not eat, drink or smoke when using this product.
• Do not handle until all safety precautions have been read and understood.
• Use personal protective equipment as required.
• Wear eye/face protection.
• Do not breathe dust

General Advice
• Immediately call a POISON CENTER or doctor/physician.
• Specific treatment (see supplemental first aid instructions on this label)

Eyes
• IF IN EYES: Rinse cautiously with water for several minutes. (remove contact lenses, if present). Continue rinsing.
• Immediately call a POISON CENTER or doctor/physician.

Skin
• IF ON SKIN (or hair): Take off all contaminated clothing. Rinse skin with soap and water/shower.
• Wash contaminated clothing before reuse.

Inhalation
• IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

Ingestion
• IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
• Rinse mouth.
• Do NOT induce vomiting.

Storage
• Store in dry area out of reach of children/pets.

Disposal
• Dispose of contents/container to an approved waste disposal system.

Hazard Not Otherwise Classified (HNOC)
Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Trade secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand, Silica, Quartz</td>
<td>14808-60-7</td>
<td>60-100</td>
<td>*</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

**Description of necessary first-aid measures**

**General Advice**
Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention may be required.

**Skin Contact**
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Immediate medical attention may be required.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

**Ingestion**
Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Protection of First-aiders**
Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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

**Most Important Symptoms/Effects**
Corrosive Serious eye irritation or damage. Skin irritation

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

**Notes to Physician**
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**
No information available.

**Specific Hazards Arising from the Chemical**
Avoid dust formation.

**Explosion Data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**
Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid dust formation. Avoid inhalation of dust. Ensure adequate ventilation.

**Environmental Precautions**
See Section 12 for additional Ecological Information.
Methods and materials for containment and cleaning up

Methods for Containment

- Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

- Avoid dust formation. Clean up promptly by scoop or vacuum. Dispose of promptly. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Do not breathe dust. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink or smoke during manufacturing use of this product. Do not take internally. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use.

Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed in a dry and well-ventilated place.

Incompatible Products


8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>TWA: 0.025 mg/m³ respirable fraction</td>
<td>30/(%SiO2+2) mg/m³ TWA, Total Dust:250/(%SiO2+5) mppcf TWA, respirable fraction:10/(%SiO2+2) mg/m³ TWA, respirable TWA: 0.1 mg/m³ (vacated)</td>
<td>IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust</td>
</tr>
<tr>
<td>Silica</td>
<td>(vacated) TWA: 6 mg/m³ &lt;1% Crystalline silica TWA: 20 mppcf (80)/(% SiO2) mg/m³ TWA</td>
<td>-</td>
<td>IDLH: 3000 mg/m³ TWA: 6 mg/m³</td>
</tr>
<tr>
<td>Portland and Masonry cements</td>
<td>TWA: 1 mg/m³ particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction</td>
<td>TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction TWA: 50 mppcf &lt;1% Crystalline silica</td>
<td>IDLH: 5000 mg/m³ TWA: 5 mg/m³ total dust TWA: 10 mg/m³ respirable dust</td>
</tr>
<tr>
<td>Limestone</td>
<td>-</td>
<td>TWA: 15 mg/m³ TWA: 5 mg/m³ (vacated) TWA: 15 mg/m³ (vacated) TWA: 5 mg/m³</td>
<td>TWA: 5 mg/m³ respirable dust TWA: 10 mg/m³ total dust</td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Engineering Measures

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection
Tightly fitting safety goggles.

Skin and Body Protection
Lightweight protective clothing. Protective gloves.

Respiratory Protection
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures
Provide regular cleaning of equipment, work area and clothing. Remove contaminated clothing and protective equipment before entering eating or smoking areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>13</td>
<td>None known</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>&gt;1482.2 °C / &gt;2700 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>&gt; 1482.2 °C / &gt;2700 °F</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point Evaporation</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>rate Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>upper flammability limit</td>
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<td>None known</td>
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<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
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<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.6 - 3.15</td>
<td>None known</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Slightly soluble</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>0 g/l.</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>None known</td>
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<tr>
<td>Viscosity</td>
<td>No data available</td>
<td>None known</td>
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<tr>
<td>Flammable Properties</td>
<td>Not flammable</td>
<td></td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Dust formation. Incompatible products.

**Incompatible materials**


**Hazardous decomposition products**

Silicon oxides. Calcium oxides.

### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

**Product Information**

- **Inhalation**: Inhalation of dust in high concentration may cause irritation of respiratory system.
- **Eye Contact**: Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. Dust contact with the eyes can lead to mechanical irritation.
- **Skin Contact**: Corrosive. Dusts may cause mechanical irritation. May cause severe irritation and possibly burns, especially in contact with broken skin.
- **Ingestion**: Harmful if swallowed. Ingestion of corrosive substances can cause burns of the upper digestive and respiratory tract.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms**

No information available.

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

- **Sensitization**: No information available.
- **Mutagenic Effects**: No information available.
- **Carcinogenicity**: The table below indicates whether each agency has listed any ingredient as a carcinogen. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
<td>X</td>
</tr>
<tr>
<td>Silica</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ACGIH**: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

**IARC**: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans
Group 3 - Not Classifiable as to its Carcinogenicity to Humans

**NTP**: (National Toxicity Program)

Known - Known Carcinogen

**OSHA**: (Occupational Safety & Health Administration)

X - Present

**Reproductive Toxicity**

No information available.
STOT - single exposure
No information available.

STOT - repeated exposure
Chronic Toxicity
May cause damage to organs through prolonged or repeated exposure.
Inhalation overexposure to free crystalline silica may cause delayed lung injury including silicosis, a disabling and potentially fatal lung disease. Inhalation exposure to respirable levels of crystalline silica may cause respiratory impairment and lung damage.

Aspiration Hazard
No information available.

Numerical measures of toxicity - Product
Acute Toxicity
The following values are calculated based on chapter 3.1 of the GHS document:
LD50 Oral 607 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

Persistence and Degradability
Not readily biodegradable

Bioaccumulation
Not expected to be bio-accumulate

Other Adverse Effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Dispose of in accordance with federal, state, and local regulations

Contaminated Packaging
Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT
Not regulated

15. REGULATORY INFORMATION

International Inventories

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories
Vita-Crete Portland Cement Based Products

Revision Date 30 May 2015

Acute Health Hazard  Yes
Chronic Health Hazard  Yes
Fire Hazard  No
Sudden Release of Pressure Hazard  No
Reactive Hazard  No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information
EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
</tr>
<tr>
<td>Physical and Chemical Hazards</td>
<td>Physical Hazard 0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X</td>
</tr>
</tbody>
</table>

Prepared By: Concrete & Mortar Packaging, LLC
dba Vita-Crete
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Issuing Date 30-May-2015
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Revision Note Initial Release.

General Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet