SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s):
Five Star® MineForm® Casing Grout
Five Star Structural Concrete®
Five Star Structural Concrete® V/O
Five Star Structural Concrete® Gunite
Five Star Structural Concrete® UW PG
Five Star Structural Concrete® ES
Five Star® Instant Grout

Synonyms: SC, IG

Product Use:
High early strength, single component, permanent concrete repair material.

Restrictions on Use:
N/A

Manufacturer/Supplier
Five Star Products, Inc.
750 Commerce Drive
Fairfield, CT 06825 USA

Phone #:
203-336-7900

Emergency Phone #:
CHEM-TEL 1-800-255-3924
(Outside the U.S. 1-813-248-0585)

SECTION 2: HAZARD(S) IDENTIFICATION–GHS INFORMATION

Classification:
Acute Oral Toxicity – Category 4
Skin Corrosion/Irritation – Category 2
Acute Toxicity – Dermal, Category 2
Eye Damage/Irritation – Category 1
Sensitization – Respiratory, Category 1
Carcinogenicity – Category 1A
Specific Target Organ Systemic Toxicity (Single Exposure) – Cat 3
Specific Target Organ Toxicity (Repeated Exposure) – Cat 2

Label Elements/Hazard Pictograms:

Signal Word:
Danger

Hazard Statements:
Harmful if swallowed H302
May cause skin irritation H317
Causes severe skin burns and eye damage H314
May cause respiratory irritation H335
May cause an allergic skin reaction H317
May cause cancer by inhalation H350
May cause damage to organs through prolonged or repeat exposure H373

Precautionary Statements/Prevention:
Do not breathe dust, fume, gas, mist, vapors, or spray, P260.
Wash thoroughly after handling, P264.
Do not eat, drink or smoke when using this product, P270.
Contaminated work clothing should not be allowed out of the workplace, P272.
Wear protective gloves, protective clothing, eye protection and face protection, P280.
Wear respiratory protection, P284.

Response:
If swallowed: Rinse mouth. Do NOT induce vomiting, P330, P331.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower, P361, P353.
If inhaled: Remove person to fresh air and keep comfortable for breathing, P340.
If in eyes: Rinse cautiously with water for several minutes, P351. Remove contact lenses, if present and easy to do. Continue rinsing, P338.
Immediately call a poison center or doctor, P310.
If skin irritation or rash occurs, P333: Get medical advice/attention, P313.
If experiencing respiratory symptoms, P342: Call a poison center or doctor, P310. Wash contaminated clothing before reuse, P363.

Storage:
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable regional, national, and local laws and regulations.

Hazards Not Otherwise Classified:
Not applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredient(s)</th>
<th>Common Name/Synonyms</th>
<th>CAS No.</th>
<th>% wt/wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland Cement</td>
<td>Hydraulic cement</td>
<td>65997-15-1</td>
<td>30-60</td>
</tr>
<tr>
<td>Blended Hydraulic Cement</td>
<td>n/a</td>
<td>TS</td>
<td>30-60</td>
</tr>
<tr>
<td>Quartz</td>
<td>Silicon Dioxide, Silica Sand</td>
<td>14808-60-7</td>
<td>40-60</td>
</tr>
</tbody>
</table>
### SECTION 4: FIRST AID MEASURES

**Inhalation:**
If inhaled: Remove person to fresh air and keep comfortable for breathing.

**Eye Contact:**
If experiencing respiratory symptoms call poison center or doctor.
If in eyes: Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

**Skin Contact:**
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower for at least 15 minutes. Immediately call a poison center or doctor if irritation develops. Wash contaminated clothing before reuse.

**Ingestion:**
If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.

**General Advice:**
In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

**Note to Physicians:**
Symptoms may not appear immediately. Treat symptomatically.

### SECTION 5: FIRE-FIGHTING MEASURES

**Flammability and Explosion Information:**
Not flammable or combustible by OSHA/WHMIS criteria.

**Sensitivity to Mechanical Impact:**
This material is not sensitive to mechanical impact.

**Sensitivity to Static Discharge:**
This material is sensitive to static discharge at temperatures at or above the flash point.

**MEANS OF EXTINCTION**

**Suitable Extinguishing Media:**
Small Fire: Dry chemical, CO2, or water spray.
Large Fire: Dry chemical, CO2, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material.

**Unsuitable Extinguishing Media:**
Not available

**Product of Combustion:**
Non-combustible

**Protection of Firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Emergency Procedures:**
Use personal protective equipment. Ensure adequate ventilation. Keep people from spill. Avoid dust formation.
### Personal Precautions:
Avoid inhalation of dust. Do not get into eyes, on skin, or clothing.

### Environmental Precautions:
The environmental impact of this product has not been fully investigated.

### Methods for Containment:
Cover powder spill with plastic sheet or tarp to minimize spreading. Collect this material into a disposal container by sucking or sweeping up.

### Methods for Cleanup:
Pick up and transfer to properly labeled containers.

### Other Information:
See Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### Handling:
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Prevent contact with skin, eyes, and clothing. Wash thoroughly after handling.

### Storage:
Keep containers tightly closed in a cool, dry, and well-ventilated place. Store locked up.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portland cement</td>
<td>65997-15-1</td>
<td>TWA: 1mg/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>
</tr>
<tr>
<td>Blended Hydraulic Cement</td>
<td>TS</td>
<td>TWA: 1mg/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>
</tr>
<tr>
<td>Quartz</td>
<td>14808-60-7</td>
<td>TWA: 0.025mg/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>
</tr>
</tbody>
</table>
PEL: Permissible Exposure Limit  TLV: Threshold Limit Value

Engineering Controls:  Not normally required.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection:  Tightly fitting safety goggles

Hand Protection:  Impervious gloves. Impervious clothing.

Skin and Body Protection:  Impervious gloves. Impervious clothing.

Respiratory Protection:  If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations:  Handle according to established industrial hygiene and safety practices.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Solid powder</td>
</tr>
<tr>
<td>Color:</td>
<td>Gray, tan, brown</td>
</tr>
<tr>
<td>Odor:</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>n/a</td>
</tr>
<tr>
<td>Physical State:</td>
<td>Solid, powder</td>
</tr>
<tr>
<td>pH:</td>
<td>Approximately 12 when mixed with water.</td>
</tr>
<tr>
<td>Melting Point / Freezing Point:</td>
<td>n/a</td>
</tr>
<tr>
<td>Initial Boiling Point:</td>
<td>n/a</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>n/a</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>n/a</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>n/a</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>n/a</td>
</tr>
<tr>
<td>Lower Flammability Limit:</td>
<td>n/a</td>
</tr>
<tr>
<td>Upper Flammability Limit:</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>n/a</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Relative Density: n/a
Solubility: Slight, 0.2-0.5%
Partition Coefficient: n-Octanol/Water: n/a
Auto-ignition Temperature: n/a
Decomposition Temperature: n/a
Viscosity: n/a
Percent Volatile, wt.%: n/a
VOC Content, wt.%: n/a
Density: n/a
Coefficient of Water/Oil Distribution: n/a

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: None under normal processing.
Conditions to Avoid: Exposure to water – product may harden on contact with water. Manage dust formation during use.
Incompatible Materials: Strong acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure.
Product information:
Inhalation: Irritating to respiratory system. Irritating to mucous membranes.
Eye contact: Risk of serious damage to eyes.
Skin contact: Irritating to skin. May cause allergic skin reaction
Ingestion: Harmful if swallowed.
Component information:
Chemical Name: Quartz      LD50 Oral: 500 mg/kg (Rat) ACGIH: A2 – Suspected Human Carcinogen
IARC: Group 1 – Carcinogenic to humans  OSHA: X-present
Delayed and immediate effects and also chronic effects from short and long term exposure.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:
Aquatic Toxicity: The environmental impact of this product has not been fully investigated.
Persistence and Degradability: No information available.
Bio-accumulative Potential: Does not accumulate in organisms
Mobility in Soil: No further relevant information available

Ecotoxicological Effects
Remark: No information available.
Additional Ecological Information: No information available.
General Notes: This statement was deduced from products with a similar structure or composition. Due to available data on eliminability/decomposition and bio-accumulation potential prolonged term damage of the environment cannot be excluded. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

PBT Assessment: N/A
vPvB Assessment: N/A
Other Adverse Effects: No further relevant information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods: May be disposed of in an unrestricted sanitary landfill.
Recommendation: This material as supplied is not a hazardous waste according to Federal regulations (40CFR261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered.

Uncleaned Packaging
Recommendation: Disposal must be made according to official regulations. Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

US DEPARTMENT of TRANSPORTATION (DOT)
Proper Shipping Name: Not regulated.
Class: n/a
UN #: n/a
Packing Group: n/a

CANADA Transportation of Dangerous Goods (TDG)
Proper Shipping Name: Not regulated.
Class: n/a
UN #: n/a
Packing Group: n/a

SECTION 15: REGULATORY INFORMATION

CHEMICAL INVENTORIES

US (TSCA): The components of this product are in compliance with the chemical notification requirements of TSCA.

CANADA (DSL): The components of this product are in compliance with the chemical notification requirements of NSN Regulations under CEPA, 1999.

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 CFR, Part 372.

UNITED STATES: This SDS has been prepared to meet the US OSHA Hazard Communication Standard, 29 CFR 1910.1200

SARA 311/312 Hazard Categories
Acute health hazard – Yes
Chronic Health hazard – Yes
Fire Hazard – No
Sudden Release of Pressure – No
Reactive Hazard - No

US STATE Right to Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NJ</th>
<th>MA</th>
<th>PA</th>
<th>IL</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portlant Cement</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Quartz</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

California
California Prop 65: This product contains the following Proposition 65 chemicals.
Chemical Name: Quartz  CAS-No: 14808-60-7 CA Prop. 65: Carcinogen

SECTION 16: OTHER INFORMATION

Disclaimer: The information contained in this document applies to the specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user’s responsibility to satisfy oneself as to the suitability and completeness of this information for one’s own particular use.