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#### **SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

Product Name(s): Five Star® Crane Rail Grout / Component C Aggregate

Five Star® DP Epoxy Grout / Component C Aggregate
Five Star® DP Epoxy Grout PG / Component C Aggregate

Five Star® DP Epoxy Grout High Flow / Component C Aggregate

Five Star® Elastomeric Grout / Component C Aggregate
Five Star® Epoxy Grout N / Component C Aggregate
Five Star® Epoxy Grout Red N / Component C Aggregate
Five Star® Epoxy Novolac Grout / Component C Aggregate
Five Star® HP Epoxy Grout / Component C Aggregate

Five Star Novolac Structural Concrete®/Component C Aggregate
Five Star® Pile Jacket Epoxy Grout HP/Component C Aggregate
Five Star® Pile Jacket Epoxy Grout LPL-HF/Component C Aggregate

**Five Star® ProFIX™/Component C Aggregate** 

Five Star® RailForm™ HPG / Component C Aggregate
Five Star® Rapid Epoxy Grout /Component C Aggregate

Five Star® Rapid Surface Repair Easy Mix/Component C Aggregate

Five Star® SP Epoxy Grout PG / Component C Aggregate

Synonyms: Aggregate, Component C

Product Use: Aggregate for reactive polymer construction products. Designed for use with

appropriate hardener and resin.

Restrictions on Use: Use per Five Star's product recommendations

Manufacturer/Supplier Five Star Products, Inc.

60 Parrott Drive

Shelton, CT 06484 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 1
Acute Toxicity – Dermal, Category 5
Eye Damage/Irritation – Category 1
Sensitization – Respiratory, Category 1

Specific Target Organ Systemic Toxicity (Single Exposure) – Cat 3

Carcinogenicity - Category 1A

Specific Target Organ Toxicity (Repeated Exposure) - Cat 2



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Label Elements/Hazard Pictograms:







Signal Word: Warning

**Hazard Statements:** H302 Harmful if swallowed

H313 May be harmful in contact with skin

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled

H335 May cause respiratory irritation H350 May cause cancer by inhalation

H373 May cause damage to organs through prolonged or repeat

exposure

Precautionary
Statements/Prevention:

P260 Do not breathe dust, fume, gas, mist, vapors, or spray.

P264 Wash thoroughly after handling.

P280 Wear protective gloves, protective clothing, eye protection and

face protection.

P284 Wear respiratory protection.

**Response:** P330, P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P340 If inhaled: Remove person to fresh air and keep comfortable for

breathing.

P351, P338, P310 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. Immediately call a poison center or doctor.

P333, P313 If skin irritation or rash occurs: Get medical advice /

attention.

P342, P363 If experiencing respiratory symptoms: Call a poison center

or doctor, P310. Wash contaminated clothing before reuse.

**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



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS					
Hazardous Ingredient(s)	Common Name/Synonyms	CAS No.	% wt/wt		
Quartz	Silicon Dioxide, Silica Sand, Crystalline Silica	14808-60-7	65-90		
Amorphous Silica Mixture	Not Applicable	Trade Secret	10-35		

#### **SECTION 4: FIRST AID MEASURES**

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

breathing.

If experiencing respiratory symptoms call poison center or doctor.

**Eye Contact:** If in eyes: Rinse cautiously with water for at least 15 minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

**Skin Contact:** Wash skin thoroughly.

**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 not sensitive to static discharge.

**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



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**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**

Component	CAS No.	ACGIH TLV	OSHA PEL
Quartz*	14808-60-7	TWA: 0.025mg/m³ respirable fraction	TWA: 0.050 mg/m³ AL: 0.025 mg/m³
Amorphous Silica Mixture	Trade Secret	Not Established	TWA: Total 15 mg/m <sup>3</sup> Respirable 5 mg/m <sup>3</sup>

PEL: Permissible Exposure Limit TLV: Threshold Limit Value AL: Actionable Level

**Engineering Controls:** Not normally required.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Eye/Face Protection:** Tightly fitting safety goggles

<sup>\*</sup>Respirable (< 6 micron) fraction for product is <0.1%



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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			
Appearance:	Granular Powder		
Color:	Gray, Tan, Pink		
Odor:	None		
Odor Threshold:	None		
Physical State:	Solid, powder		
pH:	1:1 W/O Water=12		
Melting Point / Freezing Point:	>2,000°F (1,093°C)		
Initial Boiling Point:	Not Applicable		
Boiling Point:	Not Applicable		
Flash Point:	Not Applicable		
Evaporation Rate:	Not Applicable		
Flammability (solid, gas):	Not Applicable		
Lower Flammability Limit:	Not Applicable		
Upper Flammability Limit:	Not Applicable		
Vapor Pressure:	Not Applicable		
Vapor Density:	Not Applicable		
Relative Density:	2.5-2.8		
Solubility:	Negligible		
Partition Coefficient: n-Octanol/Water:	Not Applicable		
Auto-ignition Temperature:	Not Applicable		
Decomposition Temperature:	Not Applicable		
Viscosity:	Not Applicable		



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Percent Volatile, wt.%:	Not Applicable
VOC Content, wt.%:	Not Applicable
Density:	2.5-2.8 g/cc
Coefficient of Water/Oil Distribution:	Not Applicable

## **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.

**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. May cause alkali

burns.

**Ingestion:** Harmful if swallowed.

## **Secondary Component Information:**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Amorphous Silica Mixture	> 2,000 mg/kg	> 2,000 mg/kg	> 5 mg/L	

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation	
Quartz	500 – 22,500 mg/kg (Rat)	Not Established	Not Established*	

<sup>\*</sup>LCL50: 0.3 mg/m3 / 10Y (Human)

Symptoms related to the physical, chemical and

toxicological characteristics: No information available.

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

**Sensitization:** May cause sensitization by skin contact.

**Mutagenic Effects:** No information available.



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**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  ${\cal L}$ 

carcinogen (Group 1). May cause cancer by inhalation.

Chemical Name	ACGIH	IARC	NTP	OSHA
Quartz	A2*	Group 1	Known	X

<sup>\*</sup>The respirable fraction as a whole is less than 0.1% and anticipated usage would generate far less than 0.1% as a respirable quantity above exposure guidelines as noted in Section 8.

ACGIH: (American Conference of Governmental Industrial

**Hygienists):** A2 - Suspected Human Carcinogen

IARC: (International Agency

**for Research on Cancer):** Group 1 - Carcinogenic to Humans

**NTP: (National Toxicity** 

**Program):** Known Carcinogen

OSHA: (Occupational Safety &

**Health Administration):** X - Present

**Reproductive Toxicity:** No information available.

**STOT - single exposure:** May cause respiratory irritation.

**STOT - repeated exposure:** Causes damage to organs through prolonged or repeated exposure if

inhaled. Lungs.

**Chronic Toxicity:** Inhalation overexposure to free crystalline silica may cause delayed lung

injury including silicosis, a disabling and potentially fatal lung disease.

**Aspiration Hazard:** No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter

**3.1 of the GHS document:** LD 50 Oral: 500 mg/kg; Acute toxicity estimate

### **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



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**Ecotoxical 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. Poisonous for fish and plankton in water bodies and toxic for aquatic organisms

until alkaline pH is neutralized.

**PBT Assessment:** Not Available

vPvB Assessment: Not Available

Other Adverse Effects: No further relevant information available

### **SECTION 13: DISPOSAL CONSIDERATIONS**

### **Waste Treatment Methods**

**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: None

UN #: None

Packing Group: None

CANADA Transportation of Dangerous Goods (TDG)

**Proper Shipping Name:** Not regulated

Class: None

UN #: None

Packing Group: None



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Air Transport (ICAO-

IATA/DGR) Proper Shipping

Name: Not regulated

Class: None

UN#: None

**Packing Group:** None

Sea Transport (IMDG Code/GGVSee) Proper

**Shipping Name:** Not regulated

Class: None

UN# None

**Packing Group:** None

**Marine Pollutant:** None

**Special Provision(s):** None

#### **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:** 

<b>Chemical Name</b>	NJ	MA	PA	IL	RI
Quartz	X	X	X		X
Amorphous	Х	Х	X		
Silica Mixture					



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California Prop 65:

This product contains the following Proposition 65 chemicals.

Chemical Name: Quartz, CAS-No: 14808-60-7 CA Prop. 65: Carcinogen

Chemical Name: May contain trace amounts (<0.005%) of one or more of: arsenic, lead, nickel, cadmium, mercury, CA Prop 65: Birth defects

or other reproductive harm.

### **SECTION 16: OTHER INFORMATION**

HMIS Rating:	Health	Flammability	Physical Hazard	Personal Protection	
	1	0	0	E, X	

**Disclaimer:** This information is furnished without warranty of any kind, expressed or

implied. Five Star Products, Inc. bases the information and

recommendations in this document on data believed to be current and

accurate.