



Safety Data Sheet

Date Revised: 5/21/2015

Supersedes: 12/2/2014

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® DP Epoxy Grout /Component A Resin
Five Star® DP Epoxy Grout High Flow/Component A Resin
Five Star® DP Epoxy Grout PG /Component A Resin

Synonyms: Epoxy Resin, Component A

Product Use: For use with Five Star Epoxy Aggregate and Five Star Epoxy Hardener

Restrictions on Use: To be used with specific Five Star® systems.

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: Skin Irritation, Category 2
Eye Irritation, Category 2A
Skin sensitization, Category 1
Acute aquatic toxicity, Category 2
Chronic aquatic toxicity, Category 2

Label Elements/Hazard Pictograms:



Signal Word: Warning

Hazard Statements: Causes skin irritation, H315
May cause an allergic skin reaction, H317
Caused serious eye irritation, H319
Toxic to aquatic life with long lasting effects, H411

Precautionary Statements/Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray, P261
Wash skin thoroughly after handling, P264
Contaminated work clothing should not be allowed out of the workplace, P272
Avoid release to the environment, P273
Wear protective gloves/eye protection/face protection, P280



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Response: If in eyes: Rinse cautiously with water for several minutes, P351. Remove contact lenses, if present and easy to do. Continue rinsing, P338, P305, P351 If eye irritation persists: Get medical attention/advice, P337, P313

If on skin (or hair): Wash with plenty of soap and water, P302, P352

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

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

Take of contaminated clothing and wash before reuse, P362

Collect spillate, P391

Get medical advice/attention if you feel unwell, P314

Storage: Keep container tightly closed and in a dry well-ventilated space.

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

Hazards Not Otherwise Classified: Not applicable

Ingredients with Unknown Toxicity: Not applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS			
Hazardous Ingredient(s)	Common Name/Synonyms	CAS No.	% wt/wt
Bisphenol A Diglycidyl Ether Resin Mixture	n/a	25068-38-6	80-90
C8 and C10 Alkyl Glycidly Ethers	n/a	68609-96-1	10-20

SECTION 4: FIRST AID MEASURES

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.

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. Consult a physician.

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.



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Ingestion: If swallowed: Rinse mouth. Call POISON CENTER for most current information. 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). First Aid responders should pay attention to self-protection and use recommended protective clothing (chemical resistant gloves, splash protection).

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

SECTION 5: FIRE-FIGHTING MEASURES

Flammability and Explosion Information: Not available

Sensitivity to Mechanical Impact: Not available

MEANS OF EXTINCTION

Suitable Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media: Not available

Protection of Firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a spill, clear the affected area, protect people, and respond with trained personnel. Eliminate all ignition sources.

Personal Precautions: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. When respirators are required, select NIOSH/MSHA approved based on actual or potential airborne concentrations in accordance with latest OSHA and/or ANSI recommendations.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for Containment: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Other Information: See Section 13 for disposal considerations.



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SECTION 7: HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	CAS No.	ACGIH	OSHA
Bisphenol A Diglycidyl Ether Resin Mixture	25068-38-6	n/a	n/a
C8 and C10 Alkyl Glycidil Ethers	68609-96-1	n/a	n/a

PEL: Permissible Exposure Limit TLV: Threshold Limit Value

Engineering Controls: Not normally required.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Face shield and safety glasses. Use equipment for eye protection that meets the standards referenced for OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection: Wear protective gloves. Rubber or polyethylene material is recommended. Consult manufacturer specifications for further information.

Skin and Body Protection: Wear protective clothing. Clothing with full length sleeves and pants should be worn.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices. Provide readily accessible eye wash stations and safety showers. Wash at end of shift and before eating, smoking, or using the toilet. Remove contaminated clothing and launder or discard.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear light amber liquid
Color:	Light amber
Odor:	Semi Sweet
Odor Threshold:	N/A
Physical State:	Liquid
pH:	Not available



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Melting Point / Freezing Point:	Not available
Initial Boiling Point:	Not available
Boiling Point:	Not available
Flash Point:	93.4 °C, 200 °F Setaflash Closed Cup ASTM D 3828
Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Lower Flammability Limit:	N/A
Upper Flammability Limit:	N/A
Vapor Pressure:	1.33 mbar
Vapor Density:	1 [Air = 1]
Relative Density:	1.10
Solubility:	Slightly
Partition Coefficient: n-Octanol/Water:	N/A
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	1000 cps
Percent Volatile, wt. %:	0%
VOC Content, wt. %:	0%
Density:	N/A
Coefficient of Water/Oil Distribution:	N/A

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Hazardous decomposition byproducts:	CO, CO ₂ , smoke, toxic vapors
Conditions to Avoid:	Amine compounds under uncontrolled conditions.
Incompatible Materials:	Strong oxidizing agents.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:	
Primary Irritant Effect On the Skin:	Irritant to skin and mucous membranes.
Primary Irritant Effect On the Eye:	Irritating effect.



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Swallowing: Can cause abdominal irritation, nausea, vomiting, and diarrhea.

Additional Toxicological Information: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA, or ACGIH as of this date, greater or equal to 0.1%

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: All work practices must be aimed at eliminating environmental contamination.

Aquatic Toxicity: This material is harmful to the environment.

Persistence and Degradability: The product is partially biodegradable. Significant residue remains.

Bio-accumulative Potential: Does not accumulate in organisms.

Mobility in Soil: No further relevant information available

Ecotoxicological Effects Remark: Toxic for fish. Due to mechanical actions of the product damages may occur. The declared action may be partly caused by lack of oxygen.

Additional Ecological Information: No further relevant information available

General Notes: No further relevant information available

PBT Assessment: N/A

vPvB Assessment: N/A

Other Adverse Effects: No further relevant information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Recommendation: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers and liners may retain some product residues. Vapor from some product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.



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ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

Uncleaned Packaging: Empty containers may contain residue and may be dangerous. Do not attempt to refill or clean without proper instructions. Empty drums should be drained and stored safely for reconditioning or recycling.

Recommendation: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

US DEPARTMENT of TRANSPORTATION (DOT)

Proper Shipping Name: NOT REGULATED

Class: NONE

UN #: NONE

Packing Group: NONE

INTERNATIONAL AIR TRANSPORTATION Proper Shipping Name (ICAO/IATA):

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (BISPHENOL-A EPICHLORHYDRIN RESIN), 9, PG III

Class: 9

UN #: 3082

Packing Group: III

WATER TRANSPORTATION

Proper Shipping Name (IMO/IMDG): UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (BISPHENOL-A-EPOXY RESIN), 9, PG III

Class: 9

UN#: 3082

Packing Group: III

Marine Pollutant: Bisphenol-A Epichlorhydrin Resin

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.



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FEDERAL REGULATIONS

CANADA: n/a

WHMIS Classification: n/a

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

SARA Title III: No components are listed.

STATE REGULATIONS

Massachusetts US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

New Jersey US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Pennsylvania US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

California
California Prop 65: This product does not contain chemicals known to the State of California to be Carcinogenic.

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.



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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): 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 Novolac Structural Concrete®/Component C Aggregate
Five Star® Pile Jacket Epoxy Grout HP/Component C Aggregate
Five Star® HP Epoxy Grout / 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 / 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: 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: 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: Warning



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Hazard Statements: Harmful if swallowed H302
May cause respiratory irritation H335
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.
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 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			
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	n/a	TS	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.



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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

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.



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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/m ³ respirable fraction	30/(%SiO ₂ +2) mg/m ³ TWA, Total Dust;250/(%SiO ₂ +5) mppcf TWA, respirable fraction; 10/(%SiO ₂ +2) mg/m ³ TWA, respirable TWA: 0.1 mg/m ³ (vacated)

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.



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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:	n/a
Initial Boiling Point:	n/a
Boiling Point:	n/a
Flash Point:	n/a
Evaporation Rate:	n/a
Flammability (solid, gas):	n/a
Lower Flammability Limit:	n/a
Upper Flammability Limit:	n/a
Vapor Pressure:	n/a
Vapor Density:	n/a
Relative Density:	2.5-2.8
Solubility:	Negligible
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.



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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. Poisonous for fish and plankton in water bodies and toxic for aquatic organisms until alkaline pH is neutralized.

PBT Assessment: N/A

vPvB Assessment: N/A

Other Adverse Effects: No further relevant information available



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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: 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



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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

Chemical Name	NJ	MA	PA	IL	RI
Quartz	X	X	X		X

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.



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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® DP Epoxy Grout/Component B Hardener
Five Star® DP Epoxy Grout High Flow/Component B Hardener
Five Star® DP Epoxy Grout PG/Component B Hardener

Synonyms: Epoxy Hardener, Component B

Product Use: For use with Five Star Epoxy Aggregate and Five Star Epoxy Resin

Restrictions on Use: To be used with specific Five Star® systems.

Manufacturer/Supplier: Five Star Products, Inc.
60 Parrot Drive
Shelton, CT 06484

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 Toxicity – Oral, Category 4
Acute Toxicity – Dermal, Category 3
Skin Corrosion – Category 1
Eye Damage – Category 1
Sensitization – Respiratory, Category 1
Sensitization – Skin, Category 1

Label Elements/Hazard Pictograms:



Signal Word: Danger

Hazard Statements: Harmful if swallowed, H302
Toxic in contact with skin, H311
Causes severe skin burns and eye damage, H314
May cause respiratory irritation, H335
May cause an allergic skin reaction, H317

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



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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

Ingredients with Unknown Toxicity:

70% of this product mixture consists of ingredients of unknown acute toxicity.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS		
Hazardous Ingredient(s)	Common Name/Synonyms	CAS No.
Aliphatic Amines	Not available	TS
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	Not applicable	112-57-2
Tertiary Amines	Not available	TS
Amine Catalyst	Not applicable	TS

SECTION 4: FIRST AID MEASURES

Inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor.

Acute and delayed symptoms and effects: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Signs/symptoms may include burning pain in



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	the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.
Eye Contact:	<p>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.</p> <p>Acute and delayed symptoms and effects: Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.</p>
Skin Contact:	<p>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. Wash contaminated clothing before reuse.</p> <p>Acute and delayed symptoms and effects: Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, and blistering, ulceration, and tissue destruction.</p>
Ingestion:	<p>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.</p> <p>Acute and delayed symptoms and effects: Harmful if swallowed. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen.</p>
General Advice:	<p>In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible). First Aid responders should pay attention to self-protection and use recommended protective clothing (chemical resistant gloves, splash protection).</p>
Note to Physicians:	<p>Symptoms may not appear immediately. Treat symptomatically.</p>

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.

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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Products of Combustion: Oxides of carbon, oxides of nitrogen, ammonia

Protection of Firefighters: TOXIC; inhalation, ingestion or skin contact with material may cause severe injury or death. Contact with molten substance may cause severe burns to skin and eyes. Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures: As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet). Stay upwind. Keep out of low areas. Ventilate enclosed areas. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Personal Precautions: Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protection recommended in Section 8.

Environmental Precautions: Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment: Stop leak if you can do it without risk.

Methods for Clean-Up: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Other Information: See Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Handling: Do not swallow. Do not breathe mist, vapors, or spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for information on Personal Protective Equipment.

Storage: Store locked up. Store away from incompatible Materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	CAS No.	ACGIH	OSHA
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Aliphatic Amines	TS	Not established	Not established
1,2-Ethanediamine, N1-(2-aminoethyl)-N2-[2-[(2-aminoethyl)amino]ethyl]-	112-57-2	Not established	Not established
Tertiary Amines	TS	Not established	Not established
Amine Catalyst	TS	Not established	Not established

PEL: Permissible Exposure Limit TLV: Threshold Limit Value

Engineering Controls: Not normally required.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Wear chemical safety goggles and full face shield. Ensure that eyewash stations and safety showers are close to the workstation location. Use equipment for eye protection that meets the standards referenced for OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection: Wear protective gloves. Rubber or polyethylene material is recommended. Consult manufacturer specifications for further information.

Skin and Body Protection: Wear protective clothing. Clothing with full length sleeves and pants should be worn.

Respiratory Protection: Wear respiratory protection. If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator with organic vapor cartridge, or self-contained breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Reddish brown liquid
Color:	Reddish brown
Odor:	Strong, ammoniacal
Odor Threshold:	N/A
Physical State:	Liquid
pH:	Not available
Melting Point / Freezing Point:	Not available



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Initial Boiling Point:	Not available
Boiling Point:	> 100° C (212°F)
Flash Point:	> 93.4° C (200.1°F)
Evaporation Rate:	Not available
Flammability (solid, gas):	Not available
Lower Flammability Limit:	Not available
Upper Flammability Limit:	Not available
Vapor Pressure:	1.33 mBar
Vapor Density:	> 1 (Air=1)
Relative Density:	0.99 (Water=1)
Solubility:	Partially soluble in water
Partition Coefficient: n-Octanol/Water:	Not available
Auto-ignition Temperature:	Can auto-ignite in air at approximately 572°F (300°C)
Decomposition Temperature:	Not available
Viscosity:	Not available
Percent Volatile, wt. %:	0%
VOC Content, wt. %:	0%
Density:	Not available
Coefficient of Water/Oil Distribution:	Not available

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Hazardous decomposition byproducts:	Hazardous polymerization may occur.
Conditions to Avoid:	Can auto-ignite in air at approximately 572°F (300°C)
Incompatible Materials:	Epoxy resins under uncontrolled conditions, acid, oxidizing material, halogenated, organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:	
Primary Irritant Effect On the Skin:	Irritant to skin and mucous membranes.
Primary Irritant Effect On the Eye:	Irritating effect.



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Swallowing: Can cause abdominal irritation, nausea, vomiting, and diarrhea.

Additional Toxicological Information: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA, or ACGIH as of this date, greater or equal to 0.1%

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: All work practices must be aimed at eliminating environmental contamination.

Aquatic Toxicity: This material is harmful to the environment.

Persistence and Degradability: The product is partially biodegradable. Significant residue remains.

Bio-accumulative Potential: Does not accumulate in organisms.

Mobility in Soil: No further relevant information available

Ecotoxicological Effects Remark: Toxic for fish. Due to mechanical actions of the product damages may occur. The declared action may be partly caused by lack of oxygen.

Additional Ecological Information: No further relevant information available

General Notes: No further relevant information available

PBT Assessment: N/A

vPvB Assessment: N/A

Other Adverse Effects: No further relevant information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Recommendation: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers and liners may retain some product residues. Vapor from some product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Processing, use or contamination may change the waste disposal requirements. Do not dispose of on land, in surface waters, or in storm drains. Waste should be recycled or disposed of in accordance with regulations. Large amounts should be collected for reuse or consigned to licensed hazardous waste haulers for disposal.



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ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.

Uncleaned Packaging: Empty containers may contain residue and may be dangerous. Do not attempt to refill or clean without proper instructions. Empty drums should be drained and stored safely for reconditioning or recycling.

Recommendation: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

US DEPARTMENT of TRANSPORTATION (DOT) Proper Shipping Name: UN2735, AMINES, LIQUID, CORROSIVE, NOS (ALIPHATIC/TERTIARY AMINES: TETRAETHYLENEPENTAMINE) 8, PG III

Class: 8

UN #: UN2735

Packing Group: III

CANADA Transportation of Dangerous Goods (TDG) Proper Shipping Name: UN2735, AMINES, LIQUID, CORROSIVE, NOS (ALIPHATIC/TERTIARY AMINES: TETRAETHYLENEPENTAMINE) 8, PG III

Class: 8

UN #: UN2735

Packing Group: III

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.

FEDERAL REGULATIONS

CANADA: n/a

WHMIS Classification: n/a

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

SARA Title III: No components are listed.



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STATE REGULATIONS

Massachusetts	US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)
New Jersey	US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)
Pennsylvania	US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)
California California Prop 65:	This product does not contain chemicals known to the State of California to be Carcinogenic.

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.