



Safety Data Sheet

Date Revised: 10/03/2023

Supersedes: 11/08/2022

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® High Flow Pile Jacket Epoxy Grout LPL-HF / Component A Resin

Synonyms: Epoxy Resin, Component A

Product Use: For use with Five Star® Epoxy Grout Aggregate and Five Star® High Flow Pile Jacket Epoxy Grout LPL-HF Hardener

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

Manufacturer/Supplier: Five Star Products, Inc.
2 Enterprise Drive, Suite 303
Shelton, CT 06484 USA

Phone #: 203-336-7900

Emergency Phone #: VelocityEHS 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
Causes serious eye irritation, H319
Toxic to aquatic life, H401
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
Epoxy Resin Mixture	Not Available	Trade Secret	100

SECTION 4: FIRST AID MEASURES

Inhalation:	If inhaled: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Eye Contact:	If in eyes: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin Contact:	If on skin (or hair): Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Ingestion:	If swallowed: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
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



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attention to self-protection and use recommended protective clothing (chemical resistant gloves, splash protection).

Note to Physicians:

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: FIRE-FIGHTING MEASURES

Flammability and Explosion Information:

In a fire or if heated, a pressure increase will occur, and the container may burst.

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

Protection of Firefighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8 of SDS).

Environmental Precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for Containment:

Stop leak if you can do it without risk. Absorb and surround spilled liquid with poly pads or other suitable absorbent material.

Methods for Cleanup:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Shovel up and place all spill residue in suitable containers for disposal.

Other Information:

See Section 13 for disposal considerations.



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SECTION 7: HANDLING AND STORAGE

Handling:

Put on appropriate personal protective equipment (see section 8 of SDS). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, keep away from open flames, hot surfaces, sources of ignition, incompatible materials (see section 10 of SDS) and food and drink. Provide ventilation for containers. Keep containers tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

No exposure standard allocated. Consult local authorities for acceptable exposure limits.

Engineering Controls:

Aromatic Hydroxide TWA 10.000000 ppm USA. Workplace Environmental Exposure Levels (WEEL).

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Hand Protection:

Chemical-resistant, impervious gloves complying with an approved standard should always be worn when handling chemical products if a risk assessment indicates this is necessary. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Chemical-resistant, impervious gloves complying with an approved standard should always be worn when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.



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Skin and Body Protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

General Hygiene Considerations:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Liquid, Yellow
Color:	Yellow
Odor:	None
Odor Threshold:	Not available
Physical State:	Liquid
pH:	Not available
Melting Point / Freezing Point:	Not available
Initial Boiling Point:	Not available
Boiling Point:	Not available
Flash Point:	Setaflash Closed Cup: 200°F/93.4°C (ASTM D 3828)
Evaporation Rate:	Not available
Flammability (solid, gas):	Not available
Lower Flammability Limit:	Not available
Upper Flammability Limit:	Not available
Vapor Pressure:	Not available
Vapor Density:	Not available
Relative Density:	1.1
Solubility:	Not available
Partition Coefficient: n-Octanol/Water:	Not available
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
Percent Volatile, wt. %:	0%
VOC Content, wt. %:	0%



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Density:	1.1 g/cc
Coefficient of Water/Oil Distribution:	Not available

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Air sensitive.
Conditions to Avoid:	Incompatible materials. Excessive heat. Exposure to moisture or water.
Incompatible Materials:	Reactive or incompatible with the following materials: strong oxidizing agents, strong acids, strong alkalis, aliphatic amines.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Other Hazards:	Reacts with considerable heat release with some curing agents. Heating this substance above 300F in the presence of air may cause slow oxidative decomposition; above 500F polymerization may occur. Some combinations of resins and curing agents can produce exothermic reactions which in large masses can cause runaway polymerization and charring of the reactants. Fumes and vapors from the thermal and chemical decompositions vary widely in composition and toxicity.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Bisphenol A Diglycidyl Ether Resin Mixture	>5,000.00, Rat Category: N/A	20,000.00, Rabbit Category: N/A	No Data Available	No Data Available	No Data Available

Primary Irritant Effect

On the Skin: Irritant to skin and mucous membranes

Primary Irritant Effect

On the Eye: Irritating effect.

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%



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SECTION 12: ECOLOGICAL INFORMATION

Toxicity: No known significant effects or critical hazards.

Aquatic Toxicity: Not available

Product/Ingredient Name	Result Species Exposure
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	Acute LC50 1.3 mg/l - 203 Fish – Fish96 hr Fish, Acute Toxicity Test
	Acute EC50 2.1 mg/l - 202 Aquatic invertebrates. 48 hr Daphnia sp. Acute Immobilization Water flea Test and Reproduction Test
	Acute NOEC 0.3 mg/l - 211 Aquatic invertebrates. 21 d Daphnia Magna Reproduction Test Water flea
	Acute LC50 > 11 mg/l Aquatic plants – Algae 72 h

Partition Coefficient: n-octanol/water Not available

Bio-accumulative Potential: Does not accumulate in organisms.

Other Adverse Effects: None

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.

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



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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

CANADA Transportation of Dangerous Goods (TDG) 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 Epichlorohydrin Resin



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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: None required.

WHMIS Classification: D2B: Material causing other toxic effects (Toxic).

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

SARA 311/312: Immediate (acute) health hazard, Delayed (acute and chronic) health hazard.

SARA 302/304:

Name	EHS
Oxirane, 2-(chloromethyl)-	Yes

STATE REGULATIONS

Massachusetts None required.

New Jersey None required.

Pennsylvania None required.

California This product contains the following Proposition 65 chemicals:
California Prop 65: Chemical Name: Epichlorohydrin, CAS No. 106-89-8, CA Prop 65: Carcinogen, may contain trace amounts (<0.1%)

Chemical Name: Bisphenol A, CAS No. 80-05-7, CA Prop 65: Birth defects or other reproductive harm – female, contains <1%

Chemical Name: Epichlorohydrin, CAS No. 106-89-8, CA Prop 65: Birth defects or other reproductive harm – male, contains <0.1%

SECTION 16: OTHER INFORMATION

Hazardous Material Information System III (U.S.A.):

Health	Flammability	Physical Hazard	Personal Protection
2	1	0	X, B

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