



# Safety Data Sheet

Date Revised: 08/24/2022

Supersedes: 04/09/2018

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name(s):** Five Star® Pile Jacket Epoxy Grout LV/Component B Hardener  
Five Star® Pile Jacket Epoxy Grout LPL/Component B Hardener  
Five Star® Epoxy Adhesive LV/Component B Hardener

**Synonyms:** Pile Jacket LPL Epoxy Hardener, Pile Jacket LV Epoxy Hardener, LV Adhesive Hardener

**Product Use:** Pile Jacket Epoxy Grout LV, Pile Jacket Epoxy Grout LPL, Epoxy Adhesive LV

**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

**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:** Acute Toxicity – Oral, Category 4  
Acute Toxicity – Dermal, Category 3  
Skin Corrosion – Category 1  
Sensitization – Skin, Category 1  
Serious Eye Damage/Eye Irritation – Category 1  
Sensitization – Respiratory, Category 1

**Label Elements/Hazard Pictograms:**



**Signal Word:** Danger

**Hazard Statements:** H302 Harmful if swallowed  
H311 Toxic in contact with skin  
H314 Causes severe skin burns and eye damage  
H317 May cause an allergic skin reaction  
H318 Causes serious eye damage  
H335 May cause respiratory irritation

**Precautionary Statements/Prevention:** P260 Do not breathe dust, fume, gas, mist, vapors, or spray  
P264 Wash thoroughly after handling  
P270 Do not eat, drink or smoke when using this product



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P272 Contaminated work clothing should not be allowed out of the workplace  
P280 Wear protective gloves, protective clothing, eye protection and face protection  
P284 Wear respiratory protection

**Response:**

P330, 331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
P361, P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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, P310, P363 If experiencing respiratory symptoms, P342: 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

**Ingredients with Unknown Toxicity:**

20-50% 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.	% wt/wt
Aliphatic amine	Not Applicable	Trade Secret	20-40
Cycloaliphatic hydroxide	Not Applicable	Trade Secret	20-40
Aliphatic amine	Not Applicable	Trade Secret	15-25
Amine catalyst	Not Applicable	Trade Secret	1-5

**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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<b>Eye Contact:</b>	<p>the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.</p> <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><b>Acute and delayed symptoms and effects:</b> 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>
<b>Skin Contact:</b>	<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>
<b>Ingestion:</b>	<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>
<b>General Advice:</b>	<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>
<b>Note to Physicians:</b>	<p>Symptoms may not appear immediately. Treat symptomatically.</p>

**SECTION 5: FIRE-FIGHTING MEASURES**

<b>Flammability and Explosion Information:</b>	Not flammable or combustible by OSHA/WHMIS criteria.
<b>Sensitivity to Mechanical Impact:</b>	This material is not sensitive to mechanical impact.
<b>MEANS OF EXTINCTION</b>	
<b>Suitable Extinguishing Media:</b>	<p>Small Fire: Dry chemical, CO2 or water spray.</p> <p>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.</p>
<b>Unsuitable Extinguishing Media:</b>	Not available
<b>Products of Combustion:</b>	Oxides of carbon, oxides of nitrogen, ammonia



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**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
Aliphatic amine	Trade Secret	No TLV established.	No PEL established.



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Cycloaliphatic hydroxide	Trade Secret	No TLV established.	No PEL established.
Aliphatic amine	Trade Secret	No TLV established.	No PEL established.
Amine catalyst	Trade Secret	No TLV established.	No PEL 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	
<b>Appearance:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Slight ammoniacal
<b>Odor Threshold:</b>	Not available
<b>Physical State:</b>	Liquid
<b>pH:</b>	Alkaline
<b>Melting Point / Freezing Point:</b>	Not available
<b>Initial Boiling Point:</b>	Not available
<b>Boiling Point:</b>	> 260°C (500°F)
<b>Flash Point:</b>	124°C (255°F)
<b>Evaporation Rate:</b>	Not available



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<b>Flammability (solid, gas):</b>	Not available
<b>Lower Flammability Limit:</b>	Not available
<b>Upper Flammability Limit:</b>	Not available
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Relative Density:</b>	1.01
<b>Solubility:</b>	Partial
<b>Partition Coefficient: n-Octanol/Water:</b>	Not available
<b>Auto-ignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Viscosity:</b>	50-150 cps
<b>Percent Volatile, wt. %:</b>	0
<b>VOC Content, wt. %:</b>	0
<b>Density:</b>	1.01
<b>Coefficient of Water/Oil Distribution:</b>	Not available

## SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Hazardous decomposition byproducts:</b>	Oxides of carbon, oxides of nitrogen, ammonia.
<b>Conditions to Avoid:</b>	Can auto-ignite in air at approximately 572°F (300°C)
<b>Incompatible Materials:</b>	Epoxy resins under uncontrolled conditions, acid, oxidizing material, halogenated, organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	LD50 oral 1,100 mg/kg(rat); LD50 dermal 1,550 mg/kg(rabbit)
<b>Primary Irritant Effect On the Skin:</b>	Irritant to skin and mucous membranes.
<b>Primary Irritant Effect On the Eye:</b>	Irritating effect.
<b>Swallowing:</b>	Can cause abdominal irritation, nausea, vomiting, and diarrhea.
<b>Additional Toxicological Information:</b>	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

<b>Toxicity:</b>	All work practices must be aimed at eliminating environmental contamination.
<b>Aquatic Toxicity:</b>	Fresh water LC50 0.446 mg/l/4d Fathead minnow Fresh water LC50 0.436 mg/l/4d Bluegill Salt water LC50 0.458 mg/l/4d Sheepshead minnow
<b>Persistence and Degradability:</b>	The product is partially biodegradable. Significant residue remains.
<b>Bio-accumulative Potential:</b>	Not available.
<b>Mobility in Soil:</b>	No further relevant information available
<b>Ecotoxicological Effects Remark:</b>	No known significant effects or critical hazards
<b>Additional Ecological Information:</b>	No further relevant information available
<b>General Notes:</b>	No further relevant information available
<b>PBT Assessment:</b>	Not available
<b>vPvB Assessment:</b>	Not available.
<b>Other Adverse Effects:</b>	No further relevant information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste Treatment Methods

<b>Recommendation:</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>ALL DISPOSAL MUST BE IN ACCORDANCE WITH ALL FEDERAL, STATE, PROVINCIAL, AND LOCAL REGULATIONS. IF IN DOUBT, CONTACT PROPER AGENCIES.</p>
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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:** Amines, liquid, corrosive, nos(Aliphatic amines)

**Class:** 8

**UN #:** 2735

**Packing Group:** III

### Air Transport: ICAO-IATA/DGR (Cargo) Proper Shipping Name:

Amines, liquid, corrosive, nos(Aliphatic amines)

**Class:** 8

**UN#:** 2735

**Packing Group:** III

### Sea Transport: (IMDG-Code/GGVSee):

Amines, liquid, corrosive, nos(Aliphatic amines)

**Class:** 8

**UN #:** 2735

**Packing Group:** III

**Marine Pollutant:** Listed

### CANADA Transportation of Dangerous Goods (TDG)

**Proper Shipping Name:** Amines, liquid, corrosive, nos(Aliphatic amines)

**Class:** 8

**UN #:** 2735

**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.





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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).

Component:	CAS No.	RTK List:
Aliphatic amine	TS	Listed

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

Component:	CAS No.	RTK List:
Aliphatic amine	TS	Listed

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

Component	CAS No.	RTK List:
Aliphatic amine	TS	Listed

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

## SECTION 16: OTHER INFORMATION

**HMIS (Hazardous Material Information System):**

Health	Flammability	Physical Hazard	Personal Protection
3	1	1	E, X

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