



Safety Data Sheet

Date Revised: 08/24/2022

Supersedes: 04/14/2021

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® Epoxy Novolac Coating / Component B Hardener

Synonyms: Not Applicable

Product Use: For use with associated product resin, Five Star® Novolac Coating Component A

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: Acute toxicity, dermal, Category 4
Skin corrosion/irritation, Category 1
Sensitization, skin, Category 1
Serious eye damage/eye irritation, Category 2

Label Elements/Hazard Pictograms:



Signal Word: Danger

Hazard Statements: Harmful in contact with skin, H312
Causes severe skin burns and eye damage, H314
May cause an allergic skin reaction, H317
Causes serious eye irritation, H319

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.
Obtain special instructions before use.

Response: For specific treatment see Section 4 of this SDS. IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with



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plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take off contaminated clothing and wash before reuse. If eye irritation persists: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified: None known.

Supplemental Information: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS			
Mixtures			
Chemical Name	Common Name/Synonyms	CAS No.	% wt/wt
BENZYL ALCOHOL	Not Available	100-51-6	15 – 25
[3-(AMINOETHYL)PHENYL]METHANAMINE	Not Available	1477-55-0	10 – 20
[(DIMETHYLAMINO)METHYL]PHENOL	Not Available	25338-55-0	0 – 5
4,4'-METHYLENEBIS(CYCLOHEXYLAMINE)	Not Available	1761-71-3	0 – 5
Other components considered non-hazardous or below reportable levels			50 - 70

SECTION 4: FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Call a physician or poison control center immediately.

Skin Contact: Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse. Wash clothing separately before reuse.



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Ingestion:	Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General Advice:	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5: FIRE-FIGHTING MEASURES

MEANS OF EXTINCTION

Suitable Extinguishing Media:	Water fog. Foam. Dry chemical powder. Alcohol foam. Carbon dioxide (CO ₂).
Unsuitable Extinguishing Media:	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters:	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Firefighting equipment/instructions:	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out. Water runoff can cause environmental damage.
Specific methods:	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.
General fire hazards:	No unusual fire or explosion hazards noted.



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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. Extinguish all flames in the vicinity. This product is miscible in water.

Methods and materials for containment and cleaning up:

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. When using do not eat or drink. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Use personal protective equipment as required. Do not get this material on clothing. Observe good industrial hygiene practices. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up. Keep away from food, drink and animal feeding stuffs.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

US. ACGIH Threshold Limit Values

Components	Type	Value
[3-(AMINOETHYL)PHENYL]METHANAMINE (CAS 1477-55-0)	Ceiling	0.1 mg/m ³
TITANIUM DIOXIDE (CAS 13463-67-7)	PEL	15 mg/m ³

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
[3-(AMINOETHYL)PHENYL]METHANAMINE (CAS 1477-55-0)	Ceiling	0.1 mg/m ³

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
BENZYL ALCOHOL (CAS 100-51-6)	TWA	44.2 mg/m ³

Biological Limit Values: No biological exposure limits noted for the ingredient(s).

Exposure Guidelines:

US - California OELs: Skin designation

[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0) Can be absorbed through the skin.

US - Tennessee OELs: Skin designation

[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0) Can be absorbed through the skin.

Appropriate Engineering Controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection:

Chemical goggles and face shield are recommended.

Skin/Hand Protection:

Chemical resistant gloves are recommended. Skin protection should include disposable chemical resistant coveralls with hoods. Hand protection should include appropriate chemical resistant disposable gloves, such as nitrile rubber.

Respiratory Protection:

If in spray application, respiratory protection should include at a minimum a full-face air purifying respirator (APR) with combination particulate (P100) and organic vapor (OV) cartridges. A full-face APR has an assigned protection factor (APF) of 50, as designated by OSHA. As a substitute, a PAP with a loose-fitting hood could be used as respiratory protection.

Thermal Hazards:

Wear appropriate thermal protective clothing, when necessary.



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General Hygiene Considerations:

Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. Wash hands before breaks and immediately after handling the product. Keep away from food and drink.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Liquid
Form:	Liquid
Color:	Yellow-white
Odor:	Ammoniacal. Amine-like.
Odor Threshold:	Not Available
Physical State:	Liquid
pH:	Alkaline
Melting Point / Freezing Point:	Not Available
Initial Boiling Point and Range:	Not Available
Flash Point:	200.0°F (93.3°C)
Evaporation Rate:	Not Available
Flammability (solid, gas):	Not Available
Upper/Lower Flammability or Explosive Limits	
Flammability Limit – Lower (%)	Not Available
Flammability Limit – Upper (%)	Not Available
Explosive Limit – Lower (%)	Not Available
Explosive Limit – Upper (%)	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Density:	0.95 g/cc
Solubility (Water):	Partial
Partition Coefficient: n-Octanol/Water:	Not Available
Auto-ignition Temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity:	Not Available
Specific Gravity:	0.95



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SECTION 10: STABILITY AND REACTIVITY

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability:	Stable at normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization can occur with elevated temperatures.
Conditions to Avoid:	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible Materials:	Acids. Alkaline metals. Amines. Peroxides. Fluorine. Chlorine. Phenols. Strong acids, alkalis and oxidizing agents.
Hazardous Decomposition Products:	Toxic gas. If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced. Upon combustion, oxides of chlorine may be released.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure:

Inhalation:	Prolonged inhalation may be harmful.
Skin Contact:	Causes skin irritation. Harmful in contact with skin.
Eye Contact:	Causes eye irritation.
Ingestion:	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics:	Direct contact with eyes may cause temporary irritation.

Information on Toxicological Effects:

Acute Toxicity:

Components	Species	Test Results
BENZYL ALCOHOL (CAS 100-51-6)		
Acute Dermal LD50	Rabbit	2000 mg/kg
Inhalation LC50	Rat	1000 mg/l, 8 Hours

* Estimates for product may be based on additional component data not shown.



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Skin Corrosion/Irritation: Irritating and may cause redness and pain.

Serious Eye Damage/Eye Irritation: Direct contact with eyes may cause temporary irritation.

Respiratory or Skin Sensitization:

Respiratory sensitization: Not Available.

Skin Sensitization: May cause sensitization by skin contact.

Germ Cell Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. This product contains crystalline silica. Silica is a known carcinogen; however, in this encapsulated form the normal routes of exposure are unavailable.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration Hazard: Not available.

Chronic Effects: Prolonged inhalation may be harmful.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life. Components of this product are hazardous to aquatic life. Accumulation in aquatic organisms is expected.

Components		Species	Test Results
BENZYL ALCOHOL (CAS 100-51-6)			
Aquatic			
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	10 mg/l, 96 hours

Persistence and Degradability: No data is available on the degradability of this product.

Bio-accumulative Potential: Not available.



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Partition Coefficient n-octanol/water (log Kow)

BENZYL ALCOHOL 1.1

Mobility in Soil: No data available.

Other Adverse Effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: DISPOSAL CONSIDERATIONS

- Disposal Instructions:** Dispose of contents/container in accordance with local/regional/national/international regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
- Local disposal regulations:** Dispose in accordance with all applicable regulations.
- Hazardous waste code:** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
- Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
- Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

- US DEPARTMENT of TRANSPORTATION (DOT) Proper Shipping Name:** AMINE, LIQUID, CORROSIVE, N.O.S. ([3-(AMINOETHYL)PHENYL]METHANAMINE)
- Class:** 8
- UN #:** UN2735
- Packing Group:** III
- INTERNATIONAL AIR TRANSPORTATION Proper Shipping Name (ICAO/IATA):** AMINE, LIQUID, CORROSIVE, N.O.S. ([3-(AMINOETHYL)PHENYL]METHANAMINE)
- Class:** 8
- UN #:** UN2735
- Packing Group:** III



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WATER TRANSPORTATION

Proper Shipping Name (IMO/IMDG):

AMINE, LIQUID, CORROSIVE, N.O.S. ([3-(AMINOETHYL)PHENYL]METHANAMINE)

Class:

8

UN#:

UN2735

Packing Group:

III

CANADA Transportation of Dangerous Goods (TDG) Proper Shipping Name:

AMINE, LIQUID, CORROSIVE, N.O.S. ([3-(AMINOETHYL)PHENYL]METHANAMINE)

Class:

8

UN #:

UN2735

Packing Group:

III

Environmental Hazards

Marine Pollutant:

No

EmS

Not available.

Special Precautions for User:

Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:



DOT



IATA; IMDG



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SECTION 15: REGULATORY INFORMATION

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.
CERCLA/SARA Hazardous Substances – not applicable.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

SARA 304 Emergency Release Notification: Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052): Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely Hazardous Substance: Not listed.

SARA 311/312

Hazardous Chemical: Yes

Classified Hazard Categories: Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization

SARA 313 (TRI reporting) Not regulated.

Other Federal Regulations:

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US STATE REGULATIONS

California Proposition 65 California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

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



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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)	
International Inventories		
Country(s) or Region:	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).



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SECTION 16: OTHER INFORMATION

HMIS (Hazardous Materials Identification System) Ratings:

Health	Flammability	Instability	Personal Protection
2	0	0	X, E

References:

EPA: AQUIRE database
 US. IARC Monographs on Occupational Exposures to Chemical Agents
 HSDB® - Hazardous Substances Data Bank
 IARC Monographs. Overall Evaluation of Carcinogenicity
 National Toxicology Program (NTP) Report on Carcinogens
 ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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