



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® Rapid Surface Repair Easy Mix/Component A
Five Star® RailForm™ HPG/ Component A

Synonyms: RSR Easy Mix, RailForm Hybrid Polymer Grout

Product Use: Concrete Repair

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

Phone #: 203-336-7900

Emergency Phone #: CHEM-TEL 1-800-255-3924
(Outside the U.S. 1-813-248-0585)

SECTION 2: HAZARD(S) IDENTIFICATION-GHS INFORMATION (Component A)

Classification: Skin Irritation, Category 2
Eye Irritation, Category 2A
Acute Inhalation, Category 1
Respiratory Sensitizer, Category 1
Acute aquatic toxicity, Category 2

Label Elements/Hazard Pictograms:



Signal Word: Danger

Emergency Overview: May cause skin sensitization.
Causes skin and eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Wash skin thoroughly after handling.
Avoid breathing fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Use in a well-ventilated area.

Primary Route of Exposure: Eyes, skin, oral

Carcinogenicity: This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspect carcinogen by NTP, IARC, Prop 65 or OSHA.



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (Component A)

Chemical Name(s)	Common Name/Synonyms	CAS No.	Content %
Polymeric MDI	n/a	9016-87-9	30 - 50
2,2,4 - trimethyl-1, 3-pentanediol diisobutyrate	n/a	6846-50-0	20 - 40
4,4' - Diphenylmethane Diisocyanate	n/a	101-68-8	10 - 20

SECTION 4: FIRST AID MEASURES (Component A)

Inhalation:	Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if symptoms persist.
Skin Contact:	Remove contaminated clothing. Wash with mild soap and water. Get medical attention if skin irritation or dermatitis persists.
Ingestion:	Give plenty of water. DO NOT induce vomiting. Call a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

SECTION 5: FIRE-FIGHTING MEASURES (Component A)

Flash Point:	199°C (>390°F)
Flammable Limits:	N/A
Extinguisher Media:	Carbon Dioxide, Dry Chemical, Water Fog
Unusual Fire and Explosion Hazard:	None Known. Thermal Decomposition can be formed.
Special Fire Fighting Procedures:	Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustions (see stability and reactivity). At temperatures greater than 400°F (204°C), isocyanates can polymerize and decompose which can cause pressure build-up in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire-exposed containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES (Component A)

Personal Precautions:	Avoid all personal contact. In enclosed areas, cleanup personnel should wear self-contained breathing apparatus.
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Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

Environmental Precautions: Absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport to well-ventilated areas (outside) and treat with large amounts of water. Allow to stand uncovered for 48 hours to let CO² gas escape. Clean up: Decontaminate floor with water, letting stand for at least 15 minutes.

SECTION 7: HANDLING AND STORAGE (Component A)

Handling: Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors. Use with adequate ventilation. Use appropriate personal protection equipment (Section 8). Wash thoroughly after handling.

Storage: Store in a cool dry place away from direct sunlight. Keep from freezing. Recommended storage temperature range in between 18°C and 29°C (65°F and 85°F). DO NOT EXCEED 49°C /120°F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Component A)

Exposure Guidelines:

Hazardous Ingredient(s)	CAS No.	OSHA PEL	TLV
4,4' - Diphenylmethane Diisocyanate	13463-67-7	.02 ppm	.005 ppm

Engineering Measures: Use local and general exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Wear splash proof chemical goggles / full face shield if there is a potential for splashing.

Skin / Body Protection: Wear suitable gloves (neoprene, nitrile rubber or PVC) and protective clothing to mitigate exposure.

Other Protective Clothing or Equipment: Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant.

Respiratory Protection: None normally required. Use a NIOSH approved organic vapor chemical cartridge respirator when air movement is inadequate to control vapor build-up.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Component A)

Physical State:	Liquid
Appearance:	Yellow
Evaporation Rate:	N/D
Odor:	Sweet
Solubility in Water:	Insoluble
Specific Gravity (g/cc):	1.07



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

Vapor Density (air = 1):	N/D
Vapor Pressure:	Less than 1×10^{-5} mm Hg @ 77°F (25°C) for MDI
VOC Content:	N/D
Freezing Point:	<0°C (MDI)
pH:	N/D
Boiling Point:	406°F (209°C)

SECTION 10: STABILITY AND REACTIVITY (Component A)

Stability:	Stable
Thermal Decomposition:	Can yield CO, CO ₂ and organic Nitrogen compounds
Incompatibilities:	Strong acids, peroxides and other oxidizing agents
Conditions to avoid:	Exposure to excessive heat and storage above 35°C (95°F) will shorten shelf life.

SECTION 11: TOXICOLOGICAL INFORMATION (Component A)

Acute Oral Toxicity:	Not determined
Acute Dermal Toxicity:	Not determined
Acute Inhalation Toxicity:	Not determined
Skin Irritation:	Irritating to skin. The product has not been tested. The statement has been derived from the properties of the individual components.
Eye Irritation:	Irritating to eyes. The product has not been tested. The statement has been derived from the properties of the individual components.
Respiratory Irritation:	Inhalation of vapors or mists may cause irritation to the respiratory system.
Sensitization:	May cause allergic skin reaction and irritation to the respiratory system. The product has not been tested. The statement has been derived from the properties of the individual components.
STOT – Single exposure:	Not determined
STOT – Repeated exposure:	Not determined
Carcinogenicity Classification:	No known Carcinogen

SECTION 12: ECOLOGICAL INFORMATION (Component A)

Acute Toxicity for -

Fish:	No data available
Aquatic Invertebrates:	48 hours LC50 for Daphnia magna 112 - 150mg/L



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

Algae: No data available
Microorganisms: No data available
Mobility: Considering the use of the substance, it is unlikely that significant environmental exposure in the air or water will arise.

SECTION 13: DISPOSAL CONSIDERATIONS (Component A)

If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION (Component A)

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

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

Not regulated

Class: None

UN #: None

Packing Group: None

Sea Transport (IMDG-Code/GGVSee) Proper Shipping Name:

Not regulated

UN #: None

Class: None

Packing Group: None

Marine Pollutant: None

Special Provision(s): None



Safety Data Sheet

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SECTION 15: REGULATORY INFORMATION (Component A)

HMIS Rating	
Health	*2
Flammability	1
Physical Hazard	1
PPE	G

NFPA Rating



Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

Federal Regulations

CERCLA RQ

Sara Title 311/312: Health Hazard: Acute/Chronic

CA Prop 65: None Listed

TSCA: Listed or exempt

SECTION 16: OTHER INFORMATION (Component A)

Hazard Communication: This SDS has been prepared in accordance with the Federal OSHA Hazard Communication Standard.

To the best of our knowledge, the information contained herein is accurate. However, Five Star Products, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s): Five Star® Rapid Surface Repair Easy Mix/Component B
Five Star® RailForm™ HPG / Component B

Synonyms: RSR Easy Mix, RailForm Hybrid Polymer Grout

Product Use: Concrete Repair

Manufacturer/Supplier: Five Star Products, Inc
60 Parrott Drive
Shelton, CT 06484 USA

Phone #: 203-336-7900

Emergency Phone #: CHEM-TEL 1-800-255-3924
(Outside the U.S. 1-813-248-0585)

SECTION 2: HAZARD(S) IDENTIFICATION-GHS INFORMATION (Component B)

Classification: Skin Irritation, Category 2
Eye Irritation, Category 2A
STOT Repeat, Category 2
Acute Toxicity (oral/derm), Category 4

Label Elements/Hazard Pictograms:



Signal Word: Warning

Emergency Overview: Causes severe eye irritation.
Causes skin irritation.
Harmful if swallowed.
Harmful in contact with skin.
May cause damage to organs through prolonged or repeated exposure.
Wash skin thoroughly after handling.
Avoid breathing fume/gas/mist/vapors/spray.
Don't eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Use in a well-ventilated area.

Primary Route of Exposure: Eyes, skin and mouth

Carcinogenicity: This product or one of its ingredients present at 0.1% or more is NOT listed as a carcinogen or suspect carcinogen by NTP, IARC, Prop 65 or OSHA.



Safety Data Sheet

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (Component B)

Chemical Name(s)	Common Name/Synonyms	CAS No.	Content %
2,2,4-trimethyl-1, 3-pentanediol diisobutyrate	n/a	6846-50-0	30 - 50
N,N,N',N'-Tetrakis (2-Hydroxypropyl) Ethylenediamine	n/a	102-60-3	15 - 30
Polyether Triol	n/a	25791-96-2	10 - 20
Non-hazardous material	n/a	proprietary	3 - 7

SECTION 4: FIRST AID MEASURES (Component B)

Inhalation:	Move to fresh air; give oxygen if breathing is difficult. Call a physician if symptoms persist.
Eye Contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if symptoms persist.
Skin Contact:	Remove contaminated clothing. Wash with mild soap and water. Get medical attention if skin irritation or dermatitis persists.
Ingestion:	Give plenty of water. DO NOT induce vomiting. Call a physician immediately.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure. If sensitization occurs, future contact with the material should be avoided.

SECTION 5: FIRE-FIGHTING MEASURES (Component B)

Flash Point:	129°C (265°F)
Flammable Limits:	N/A
Extinguisher Media	Carbon Dioxide, Dry Chemical, Water Fog
Unusual Fire and Explosion Hazard:	None Known. Thermal Decomposition can be formed.
Special Fire Fighting Procedures:	Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. Use cold water to cool fire-exposed containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES (Component B)

Personal Precautions:	Avoid all personal contact. In enclosed areas, cleanup personnel should wear self-contained breathing apparatus.
Environmental Precautions:	Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting.



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

SECTION 7: HANDLING AND STORAGE (Component B)

Handling: Avoid contact with eyes, skin and clothing. Avoid inhalation of vapors. Use with adequate ventilation. Use appropriate personal protection equipment (Section 8). Wash thoroughly after handling.

Storage: Store in a cool dry place away from direct sunlight. Keep from freezing. Recommended storage temperature range is between 18°C and 30°C (65°F and 85°F). Do not exceed 120°F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Component B)

Engineering Measures: Use local and general exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Wear splash proof chemical goggles / full face shield if there is a potential for splashing.

Skin / Body Protection: Wear suitable gloves (neoprene, nitrile rubber or PVC) and protective clothing to mitigate exposure.

Other Protective Clothing or Equipment: Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant.

Respiratory Protection None normally required. Use a NIOSH approved organic vapor chemical cartridge respirator when air movement is inadequate to control vapor build-up.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Component B)

Physical State:	Liquid
Appearance:	Light grey
Evaporation Rate:	N/D
Odor:	Slight Odor
Solubility in Water:	Slightly Soluble
Specific Gravity (g/cc):	N/D
Vapor Density (air=1):	Non-volatile
Vapor Pressure:	0.1 mm Hg @77°F (25°C)
VOC Content:	N/D
Boiling Point:	N/D
pH:	N/D



Safety Data Sheet

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SECTION 10: STABILITY AND REACTIVITY (Component B)

Stability:	Stable
Thermal Decomposition:	Can yield CO, CO ₂ and organic Nitrogen compounds.
Incompatibilities:	Strong acids, peroxides and other oxidizing agents
Conditions to Avoid:	Exposure to excessive heat and storage above 35°C (95°F) will shorten shelf life.

SECTION 11: TOXICOLOGICAL INFORMATION (Component B)

Acute Oral Toxicity:	Not determined
Acute Dermal Toxicity:	Not determined
Acute Inhalation Toxicity:	Not determined
Skin Irritation:	Irritating to skin. The product has not been tested. The statement has been derived from the properties of the individual components.
Eye Irritation:	Severe eye irritation. The product has not been tested. The statement has been derived from the properties of the individual components.
Respiratory Irritation:	Not determined
Sensitization:	Not determined
STOT – Single exposure:	No Data Available
STOT – Repeated exposure:	Dermal, oral
Carcinogenicity Classification:	No known Carcinogen

SECTION 12: ECOLOGICAL INFORMATION (Component B)

Acute Toxicity for -

Fish:	No data available
Aquatic Invertebrates:	No data available
Algae:	No data available
Microorganisms:	No data available
Mobility:	No data available

SECTION 13: DISPOSAL CONSIDERATIONS (Component B)

If the material as supplied becomes a waste, dispose in accordance with federal, state and local regulations.



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SECTION 14: TRANSPORT INFORMATION (Component B)

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

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

Not regulated

Class: None

UN #: None

Packing Group: None

Sea Transport (IMDG-Code/GGVSee) Proper Shipping Name:

Not regulated

UN #: None

Class: None

Packing Group: None

Marine Pollutant: None

Special Provision(s): None

SECTION 15: REGULATORY INFORMATION (Component B)

HMIS Rating	
Health	1
Flammability	1
Physical Hazard	0
PPE	B

NFPA Rating



Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

Federal Regulations

Sara Title 311/312: Health Hazard: Chronic



Safety Data Sheet

Date Revised: 3/3/2016

Supersedes: 2/1/2016

Sara Title 313: Toxic Chemical: (Ethylene glycol)
CA Prop 65: None Listed
TSCA: Listed

SECTION 16: OTHER INFORMATION (Component B)

Disclaimer: This information is furnished without warranty of any kind, expressed or implied. Five Star Products, Inc. bases the information and recommendations in this document on data believed to be current and accurate.