

Date Revised: 8/28/2015

Supersedes:

#### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name(s):	Five Star® Rapid Surface Repair PF-60 / Component A Five Star® Rapid Surface Repair PF-60 MS / Component A
Synonyms:	RSR PF-60 RSR PF-60 MS (Moisture Scavenging)
Product Use:	Concrete repair, construction products
Restrictions on Use:	Use with Rapid Surface Repair PF-60 Component B or Rapid Surface Repair PF-60 MS Component B
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

Classification:	Irritant – Skin, Category 2 Irritant – Eye, Category 2A Inhalation – Acute, Category 1 Respiratory Sensitizer, Category 1
Label Elements/Hazard Pictograms:	
Signal Word:	Danger
Hazard Statements:	Causes skin irritation, H315. May cause an allergic skin reaction, H317. Causes serious eye irritation, H319. Harmful if inhaled, H332. May cause allergy or asthma symptoms or breathing difficulties if inhaled, H334. May cause respiratory irritation, H335. May cause damage to organs (respiratory system) through prolonged or repeated exposure if inhaled, H373.
Precautionary Statements/Prevention:	If medical advice is needed, have product container or label at hand, P101. Keep out of reach of children, P102. Read label before use, P103.

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Response:	<ul> <li>Wear protective gloves and eye protection, P280.</li> <li>Wash thoroughly after handling, P264.</li> <li>Avoid breathing mist/vapors/spray, P261.</li> <li>If in EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, P305, P351, P338.</li> <li>If skin irritation or rash occurs: Get medical advice/attention, P333, P313.</li> </ul>			
Storage		If eye irritation persists: Get medical advice/attention, P333, P313.		
Storage:	Store locked up.			
Disposal:	Dispose of contents/container in accordance with applicable regional, national, and local laws and regulations.			
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC.			
	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.			
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
Polymethylene Polyphenylisocyanate	N/A	9016-87-9	60 - 80
Aromatic Hydrocarbon	N/A	64742-94-5	20 - 40

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.	
Eye Contact:	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.	



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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.
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.

SECTION 5: FIRE-FIGHTING MEASURES		
Flammability and Explosion Information:	Not flammable or combustible by OSHA/WHMIS criteria.	
Sensitivity to Mechanical Impact:	Not Applicable	
MEANS OF EXTINCTION		
Suitable Extinguishing Media:	Use dry chemical, chemical foam, carbon dioxide	
Unsuitable Extinguishing Media:	None known.	
Protection of Firefighters:	Wear self-contained breathing apparatus for fire-fighting if necessary. Hazardous decomposition products may include CO, $CO_2$ , $NO_2$ and traces of HCN and/or isocyanate vapors. Exposure to temperatures above 350°F (177°C) may cause polymerization with pressure buildup in containers. Exposure to water will release $CO_2$ .	

#### **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.
Personal Precautions:	Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. When respirators are required, select NIOSH/OSHA 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/Cleanup:	Prevent run-off into sewers, storm drains, and surface water bodies using dikes and absorbent materials. Collect spilled materials in suitable closed containers.



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#### 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 workplace. See Section 8 for information on Personal Protective Equipment.	
Storage:	Keep containers tightly closed when not in use. Store locked up. Store in a cool, dry place away from all sources of ignition, direct sunlight and incompatible materials. See Section 10 for information on incompatible materials. Keep out of reach of children.	

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Exposure Guidelines**

Component	CAS No.	ACGIH (TLV)	OSHA (PEL)
Polymethylene Polyphenylisocyanate	9016-87-9	Not Listed	Not Listed
Aromatic Hydrocarbon	64742-94-5	1600 mg/m <sup>3</sup>	400 mg/m <sup>3</sup> (TWA)

PEL: Permissible Exposure Limit TLV: Threshold Limit Value

Engineering Controls:

Use a combination of general dilution ventilation and local exhaust ventilation to keep exposure below the exposure limit. Use precautions for confined entry situations.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Eye Protection:	Safety glasses. Use equipment for eye protection that meets the standards referenced for OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.
Respiratory Protection:	NIOSH recommends up to 100 ppm positive pressure, full face-piece self-contained breathing apparatus for spray applications or when atomization (fine, airborne particles such as those present in spray applications) may occur. Those with allergies to, or sensitized to, isocyanates should always wear SCBA or avoid exposure altogether.
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.



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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:	Liquid	
Color:	Amber	
Odor:	Slight solvent odor	
Odor Threshold:	0.02ppm	
Physical State:	Liquid	
pH:	Not Applicable / Neutral	
Freezing Point:	-50°F (-46°C)	
Initial Boiling Point:	320°F (160°C)	
Boiling Point:	320 - 420°F (160 - 215 °C)	
Flash Point:	183°F (84°C)	
Evaporation Rate:	0.06	
Lower Flammability Limit:	7.0% (% by volume)	
Upper Flammability Limit:	0.6% (% by volume)	
Vapor Pressure:	3 mm Hg / 0.4kPa (68°F / 20 °C)	
Vapor Density:	4.6 (Air = 1)	
Relative Density:	1.07	
Solubility:	Not Available	
Partition Coefficient: n-Octanol/Water:	Not Available	
Auto-ignition Temperature:	>830°F (443°C)	
Decomposition Temperature:	>350°F (177°C)	
Viscosity:	70-90 CPS	
Percent Volatile, wt.%:	Not Applicable	
VOC Content, wt.%:	Not Applicable	
Density:	1.07 g/cc	
Coefficient of Water/Oil Distribution:	Not Available	

#### SECTION 10: STABILITY AND REACTIVITY

**Chemical Stability:** 

Stable under normal conditions.



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Possibility of Hazardous Reactions:	Hazardous decomposition products may include CO, $CO_2$ , $NO_2$ , and traces of HCN.
<b>Conditions to Avoid:</b>	Exposure to temperatures above 350°F.
Incompatible Materials:	Moisture contamination will release CO <sub>2</sub>

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### **Acute Toxicity**

Primary Irritant Effect On the Skin:	Irritating to skin. May cause sensitization.
Primary Irritant Effect On the Eye:	Irritating to eyes.
Sensitization:	May cause sensitization by skin contact.
Additional Toxicological Information:	LD50 (Rat) Oral Acute >2000mg/hg LC50 (Rat) Inhalation Acute 490mg/m³ (4hr) LD50 (Rabbit) Acute Dermal Toxicity – Slightly irritating
Repeated Dose Toxicity:	90 days, Inhalation NOAEL: 0.3mg/m <sup>3</sup> (18hrs/day, 5 days/wk) Irritation to lungs and nasal cavities.

SECTION 12: ECOLOGICAL INFORMATION					
Toxicity					
Aquatic Toxicity:	LC50 : >1,000mg/l (Zebra fish, 96hrs) LC50 : >3,000mg/l (Killifish , 96 hrs) EC50 : >1,000mg/l (Daphnea magna, 24hrs) EC50 : >100mg/l (Activated sludge microorganisms, 3hrs)				
Persistence and Degradability:	Material is immiscible with water, but will react with water to produce carbon dioxide and inert, non-biodegradable solids.				
<b>Bio-accumulative Potential:</b>	Does not accumulate.				
Mobility in Soil:	Material will react with water to product inert solids.				
Ecotoxical Effects Remark:	Low/Very Low. A pond study showed gross contamination cuased no significant toxic affects of a wide variety of flora in all trophic levels (including fish) with no evidence of bioaccumulation of MDI (4.4' diphenylmethane diisocyanate) or MDA (diaminodiphenylmethane)				
Additional Ecological Info.	None				
General Notes:	None				
PBT Assessment:	Not Available				
vPvB Assessment:	Not Available				
Other Adverse Effects:	None				



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SECTION 13: DISPOSAL CONSIDERATIONS				
Waste Treatment Methods				
Uncleaned Packaging Recommendation:	Decontaminate empty containers by filling with water. Heat and carbon dioxide will be released. Let stand uncovered for at least 24 hours.			
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):	Not regulated
Class:	None
UN #:	None
Packing Group:	None
WATER TRANSPORTATION Proper Shipping Name	
(IMO/IMDG):	Not regulated
Class:	None
UN #:	None
Packing Group:	None
Marine Pollutant:	None

#### SECTION 15: REGULATORY INFORMATION

# CHEMICAL INVENTORIESUS (TSCA):All ingredients are listed or are not required to be listed.CANADA (DSL):All ingredients are listed or are exempted.



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FEDERAL REGULATIONS						
CANADA						
WHMIS Classification:	Class D-1A Material causing immediate and serious toxic effects (very toxic).					
	Class D-2A Material causing other toxic effects (very toxic).					
UNITED STATES:	Class D-2B / Material causing other toxic effects (toxic). This SDS had been prepared to meet the U.S. OSHA Hazard					
	Communication Standard, 29 CFR 1910.1200					
SARA Title III:	This product contains the following chemicals subject to reporting requirements:					
	Diisocyan	Diisocyanate Compounds (Category Code N120)				
SARA Title III (Section 313):	Toxic chemicals (40CFR 372.65). Supplier notification required. Contains polymeric diphenylmethane diisocyanate.					
STATE REGULATIONS						
Massachusetts	US Massachusetts Commonwealth's Right-to-Know Las (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)					
<b>Component:</b> None	CAS No.		RTK List:	RTK List:		
New Jersey	US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)					
<b>Component:</b> Polymethylene polyphenylene isocyanate	<b>CAS No.</b> 9016-87-9		<b>RTK List:</b> Listed			
Pennsylvania	US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)					
<b>Component</b> Polymethylene polyphenylene isocyanate	<b>CAS No.</b> 9016-87-	<b>CAS No.</b> 9016-87-9		<b>RTK List:</b> Listed		
California California Prop 65:	This product does not contain chemicals known to be Carcinogenic at a level $> 0.1\%$ and reportable per 40 CFR Part 721.					
SECTION 16: OTHER INFORMA	TION					
HMIS Rating:	Health	Flammability	Physical Hazard	Personal Protection		
	2	1	1	G		
Disclaimer:	implied.	Five Star P	roducts, Inc. bases	of any kind, expressed or the information and lieved to be current and		

accurate.