



Product Name: PFC 180 (B)

Revision Date 12/18/13

SAFETY DATA SHEET

SECTION 1 Product and Company Identification

Product

Product Name: PFC 180 (B)

Product Description: Finishing aid

Intended Use: Sealer for cementitious flooring

Company

Manufacturer: SureCrete Design Products, Inc.

15246 Citrus Country Drive

Dade City, FL 33523

USA

Contact: 352-567-7973 (telephone general)

813-469-1408 (telephone 24 hour emergency)

813-469-1419

info@surecretedesign.com (e-mail)

352-521-0973 (facsimile)

SECTION 2 Hazards Identification

Warning!

Health: Toxic gases / fumes may be given off during burning or thermal decomposition. May cause lung damage.

Physical: Closed container may be ruptured under extreme heat or when contents have been contaminated with water.

SECTION 3 Composition / Information on Ingredients

This material is regulated as a mixture

Ingredient	CAS #	EC#	% (by weight)
Hazardous			
Homopolymer of Hexamethylene Diisocyanate	28182-81-2	NE	<97%
Hexamethylene-1,6-Diisocyanate	822-06-0	NA	<5%

SECTION 4 First Aid Measures

Eye Contact: Rinse with running water for 15 minutes. Hold eyelids apart while irrigating. Rest eyes for 30 minutes. If irritation continues, transport to nearest medical facility for treatment.

Skin Contact: Immediately remove contaminated clothing. Wash affected area thoroughly with soap and water. Wash clothing before reuse. If irritation continues, transport to nearest medical facility for treatment.



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Inhalation: Move to fresh air. Administer artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Get medical attention immediately. Do not induce vomiting. Get medical attention.

SECTION 5 Fire Fighting Measures

Extinguishing Media

Foam, CO₂, Dry chemical, water spray for large fires.

Special Fire Fighting Procedures: Full protective equipment, including self-contained breathing apparatus required. Water may be ineffective in fighting fire. Avoid contact with product. Highly toxic gases may be generated.

Unusual Fire and Explosion Hazard: Closed container may forcibly rupture under extreme heat or when contents are contaminated with water. Use cold water spray to minimize risk of rupture. Large fires can be extinguished with large volumes of water applied from a safe distance, since reaction between water and diisocyanate can be vigorous.

Flammability Properties

Flash Point (Method): 158°C / 316°F

Flammable Limits (Approximate volume % in air): LEL: NE UEL: NE

Auto ignition Temperature: 460°C / 860°F

SECTION 6 Accidental Release Measures

Personal precautions: Wear protective equipment. Avoid contact with skin. Avoid breathing vapors. Remove all potential sources of ignition. Evacuate personnel to safe areas. Vapors may accumulate to form explosive concentrations.

Environmental precautions: Control source of leak. Prevent entry into waterways or confined areas.

Methods for clean-up: Absorb spill onto sand, vermiculite, or any other inert, non-combustible material. Scoop into open head metal containers for later appropriate disposal. Saturate absorbent material with neutralizing solution (80% water + 20% non-ionic surfactant). Apply loose lid, allow venting for 72 hours, letting CO₂ escape.

SECTION 7 Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Do not breathe vapor or mist. Use adequate ventilation. Do not permit eating, drinking, smoking near material.

Storage: Store at temperatures between -34°C (34°F) and 50°C (122°F) Keep containers tightly closed, in dry, cool, well ventilated place.

SECTION 8 Exposure Control / Personal Protection

Exposure limit values: Bayer Exposure Limit

TWA: 0.5 mg/m³

STEL: 1.00 mg/m³ (15 min.)



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Occupational exposure controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Respiratory protection: Wear suitable NIOSH approved respirator when ventilation is inadequate. If product is sprayed, a supplied air respirator, either positive pressure or continuous flow type is required.

Hand protection: Chemically compatible gloves

Eye protection: Safety glasses with side shields, goggles, or full face shield.

Skin protection: Minimize skin contact with appropriate long-sleeved clothing

Hygiene measures: Observe good industrial hygienic practices. Frequently launder or discard proactive clothing, equipment.

Medical Surveillance: All individuals that are to work with product must undergo medical pre-placement screening. No individual may have a history of pulmonary problems: adult asthma, hay fever. Any worker that is diagnosed with sensitization to isocyanate must be excluded from any exposure.

Environmental exposure controls: Emissions from work process equipment should be checked against requirements of appropriate environmental protection legislation. In some cases alteration to work process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9 Physical and Chemical Properties

General

Physical state: liquid

Color: clear / pale yellow

Odor: solvent, yet fruity

Safety Data

pH: not applicable

Boiling point: -24°C / -11°F

Flash point: 158°C / 316°F

Flammable limits (approximate volume % in air): LEL: NE UEL: NE

Auto ignition temperature: 460°C / 860°F

Vapor pressure: HDI Polyisocyanate: 5.2×10^{-9} @ 20°C / 68°F mmHg

Water solubility: insoluble / reacts slowly with water to liberate CO₂ gas

Bulk density: 9.68 lbs/gal.

Specific gravity (water = 1): 1.16

VOC: 330 g / L (A and B combined)

SECTION 10 Stability and Reactivity

Stability: Stable under normal conditions

Conditions to avoid: none known

Materials to avoid: water, amines, strong bases, alcohols, copper alloys

Hazardous decomposition products: by fire and high heat - CO₂, CO, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid, other undetermined compounds.

SECTION 11 Toxicological Information



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Acute Toxicity

Route of Exposure	Conclusion / Remarks
<i>Inhalation</i>	
Toxicity : LC50: 390 – 453 mg/m ³ , aerosol (rat) RD50: 20.8 mg/m ³ , 3 hours	No deaths
Irritation: data available	irritating to the eyes, nose, throat, or lungs based on available literature
<i>Ingestion</i>	
Toxicity: LD50 > 5,000 mg/kg (rat)	No deaths
<i>Skin</i>	
Toxicity: LD50 > 5000 mg/kg (rabbit)	No deaths
Irritation: data available	Irritating to the skin based on available literature
<i>Eye</i>	
Irritation: data available	Moderately irritating to the eyes based on available literature

SECTION 12 Ecological Information**Ecotoxicity:** Material expected to be toxic to aquatic organisms

Acute and prolonged toxicity to fish	LC0: >100 mg/L	Zebra fish	Brachydanio rerio	96 hours
Acute toxicity to aquatic invertebrates	EC0: >100 mg/L	Water flea	Daphnia magna	48 hours
Toxicity to aquatic plants	EC50: >1000 mg/L	Green algae	Scenedesmus subspicatus	72 hours
Toxicity to microorganisms	EC50: >1000 mg/L	Sludge bugs	microorganisms	3 hours

Persistence and degradability: not readily biodegradable**SECTION 13 Disposal Considerations****Methods of disposal:** waste must be disposed of in accordance with federal, state, and local environmental control regulations.**Hazardous waste:** European waste code 14 06 03. The material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that directive unless Article 1(5) of the Directive applies.



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Section 14 Transport Information

<i>Regulatory Information</i>	<i>UN number</i>	<i>Proper shipping name</i>	<i>Class</i>	<i>Packing group</i>	<i>Additional information</i>	<i>Marine pollutant</i>
DOT	NA3082	Other regulated substances, liquid, n.o.s. (contains Hexamethylene-1,6-Diisocyanate	9	III	Reportable quantity of 50,000 lbs is so unlikely to be achieved with product packaging that it is considered impossible	NA
ADR/RID class					Not regulated	
IMDG class					Not regulated	
IATA class					Not regulated	

SECTION 15 Regulatory Information

US FEDERAL

OSHA Hazards: hazardous

TSCA Inventory Listing: listed or exempt

SARA 302 Status: no chemicals to report

SARA 311/312 Classification: Immediate (Acute) Health Hazard. Delayed (Chronic) Health Hazard. Reactivity Hazard.

SARA 313: no chemicals to report

CERCLA Hazardous Substance: reportable quantities greater than packaging limits

INTERNATIONAL REGULATIONS

DSL: listed

STATE REGULATIONS

California Prop.65: This product does not contain elements known to the State of California to cause cancer, birth defects, or reproductive harm.

SECTION 16 Other Information

Hazard Ratings

	<i>health</i>	<i>flammability</i>	<i>reactivity</i>
HMIS	2	1	1
NFPA	2	1	1

Recommended restriction: for use by trained professionals, having read the complete MSDS

Key Legend:

ACGIH – American Conference of Governmental Industrial Hygienists

HMIS - National Paint and Coating Hazardous Materials Identification System



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NFPA – National Fire Protection Agency
OSHA – Occupational Safety and Health Administration
WHIMS – Workplace Hazardous Materials Information System
AICS – Australian Inventory of Chemical Substances
MITI – Japanese Ministry of Trade and Industry Inventory Listing
DSL – Canadian Domestic Substance List
NDSL – Canadian Non-domestic Substance List
EINECS – European Inventory of Existing Commercial Chemical Substances Listing
PICCS – Philippines Inventory List
NTP – National Toxicology Program
IARC – International Agency for Research on Cancer
R – Risk Phrases
S – Safety Phrases

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