



1569 Alison Drive, West Palm Beach, FL 33409
Corp: (866) 637-ROOF (7663) 24 HR Field: (561) 921-ROOF(7663) Fax: (941) 866-ROOF(7663)
Email: finalflatroof@aol.com Web: www.finalflatroof.com

M A T E R I A L S A F E T Y D A T A S H E E T

Product Name: FFR-K1 Flexible Roof Coating
Single Component Aliphatic Polyurethane Roof Coating LOW VOC

SUPPLIER:

Final Flat Roof
1569 Alison Drive
West Palm Beach, FL 33409

MANUFACTURER:

Fielco, LLC
1957 Pioneer Road
Huntingdon Valley, PA 19006

EMERGENCY TELEPHONE: (866) 637-7663

EMERGENCY TELEPHONE: (800) 424-9300
24 Hours

PREPARER: Industrial Hygiene, PHONE: 215/674-8700, PREPARE DATE: 10/7/10

1. INGREDIENTS

	CAS	Amount
IPDI prepolymer Blend	trade secret	27 - 40 %
Dimethyl Carbonate	616-38-6	8 - 13 %
Barium Sulfate	7727-43-7	3 - 8 %
Titanium Dioxide	13463-67-7	12 - 20 %
Hydrated Alumina	21645-51-2	17 - 24 %
Amorphous Silica	7631-86-9	3 - 4 %
Triphenyl Phosphate	115-86-6	6 - 7 %
Isopropylated triphenyl phosphate	68937-41-7	9 - 11 %

The product contains no added lead or hexa-valent chromium

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL AND CHEMICAL DATA:

BOILING POINT: range - starts at 91 0 C
VISCOSITY: Thixotropic, 75,000 cps
VAP PRESS: n/a
SOL. IN WATER: slight (108-65-6)
SP. GRAVITY: 1.30 -1.50
APPEARANCE: Viscous Paint various colors
ODOR: mainly sweet ethereal distinct

Continued on Page 2

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 18 0C (64 0F)
METHOD USED: TCC
FLAMMABLE LIMITS LFL: 4.2 estimated based on Dimethyl Carbonate
UFL: 12.9 estimated based on Dimethyl Carbonate
AUTO-IGNITION expected to be circa 450 0C based on dimethyl carbonate
EXTINGUISHING MEDIA: foam, CO2, dry chemical, water spray
FIRE AND EXPLOSION HAZARDS: Flammable liquid and forms peroxides of unknown stability
FIRE-FIGHTING EQUIPMENT: Wear positive pressure SCBA.

MSDS DEVELOPMENTAL ROOF COATING page 2

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Excess heating over long periods of time degrades the paint and may raise the material above its flash point. The material reacts with moist air and goes solid
INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Base, acid, amines, alcohols, water
HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of this material are carbon monoxide, nitrogen oxides, soot and water. The thermal decomposition products therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.
HAZARDOUS POLYMERIZATION: Will not occur by itself but masses more than 1 pound of product plus moisture, water or amines will cause irreversible polymerization with considerable heat buildup.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION -see also section 13

ACTION TO TAKE FOR SPILLS/LEAKS: Eliminate sources of ignition. NO SMOKING, Soak up in absorbent material and collect in suitable containers. Residual may be removed using steam or hot soapy water to harden and then scraped up and incinerated.
DISPOSAL METHOD: Burn in adequate incinerator or bury in an approved landfill; in accordance with local, state and federal regulations.

6. HEALTH HAZARD DATA

EYE: Minor transient irritation. No corneal injury likely. Slight irritant in rabbits
SKIN CONTACT: May cause allergic skin reaction in susceptible individuals. Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation.
SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. LD50 rabbit >5000 mg/kg
INGESTION: Low acute oral toxicity; LD50 (male rat) >5, 000 mg/kg. Female Rat = 8850 mg/kg. No hazards anticipated from ingestion incidental to industrial exposure.

Continued on page 3

6. HEALTH HAZARD DATA (continued)

INHALATION: Vapors are due to the dimethyl carbonate. Can be a Central Nervous System Depressant. Titanium Dioxide 13463-67-7 25 - 40 %; Aluminum Hydroxide 21645-51-2 0.9 %; Amorphous Silica; 7631-86-9; 3 -4 % are all inhalation hazards but only in dust form. In this product they are completely dispersed in resin and thus present no hazard.

INHALATION: May cause respiratory tract irritation and symptoms similar to skin contact.

SYSTEMIC AND OTHER EFFECTS: Except for skin sensitization, repeated exposures to low molecular weight resins of this type are not anticipated to cause any significant adverse effects. However, high levels of impurities compromise the validity of the findings. None of the ingredients are believed to be a cancer hazard to humans. Results of mutagenicity tests on the base raw materials, in animals, have been negative.

7. FIRST AID:

EYES: Irrigation of the eye immediately with water for fifteen minutes is a good safety practice.

SKIN: Contact will probably cause no more than irritation. Wash off in flowing water or shower. Wash clothing before reuse.

INGESTION: Low in toxicity. No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

INHALATION: Remove to fresh air if effect occurs. Consult medical personnel.

NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

VENTILATION: ELIMINATE ALL SOURCES OF IGNITION Good room ventilation usually adequate for most operations.

RESPIRATORY PROTECTION: None normally needed. If used must comply with OSHA 63FR 1152

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur.

EYE PROTECTION: Use chemical goggles.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Practice good caution and personnel cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material. This material is activated by, and reacts with moisture so it should be stored in a clean

dry place. If stored in bulk (not recommended) observe all necessary for grounding the tanks etc as the material contains flammable solvent. A nitrogen blanket should be used.

10. TOXICOLOGY Please also refer to section 6

No data on the product itself but there is on the major ingredients.

<u>IPDI prepolymer Blend</u>	trade secret
Acute Eye Irritation	0.1 ml rabbit. Mildly irritating
Acute Skin Irritation	0.5 ml rabbit. Mildly irritating
Acute Dermal Toxicity	LD50 > 2000 mg /kg rabbit
Acute Respiratory	slightly to moderately irritating
Acute Respiratory Toxicity	LC50 rats >1.18 mg/Liter
Acute Oral Toxicity	LD50 rats >5000 mg/kg
<u>Dimethyl Carbonate 616-38-6</u>	
Acute Toxicity	
Ingestion	LD50, >5000 mg/kg rat
	LD50, >5000 mg/kg mouse
Skin Absorption	LD50, >5 g/kg rabbit
Inhalation	LC50, not available
Sensitization	expected to be extremely low
Skin	Skin contact may cause an allergic skin reaction in a small proportion of individuals.
Mutagenicity	negative
Embryotoxicity	negative
Teratogenicity	not reported to be teratogenic in human

Triphenyl Phosphate 115-86-6Isopropylated triphenyl phosphate 68937-41-7

Ingestion	LD50	Rats	> 5,000 mg/kg
Dermal	LD50	rats	> 2,000 mg /kg
Inhalation	LC50 6hrs	rats	> 200 mg/Liter

Pigments and Fillers Inert non hazardous variousIncludes Titanium Dioxide 13463-67-7Hydrated Alumina 21645-51-2Amorphous Silica 7631-86-9

These materials are considered non toxic. They are often used in foodstuffs. They are sometimes potentially hazardous in dust form as a respirable hazard. In this product they are fully dispersed in liquid and present no hazard.

Chronic Toxicity This material does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspect" human carcinogens

11. ECOLOGY

IPDI Prepolymer blend is designed to react with moisture to form a polymeric membrane which is inherently non-biodegradable.

Dimethyl Carbonate 616-38-6- data being acquired

11. ECOLOGY (continued)

In high concentrations, this may be harmful to aquatic life.

Triphenyl Phosphate 115-86-6 Isopropylated triphenyl phosphate 68937-41-7

LC50 Fathead Minnow 96 hours 10.8 mg/L.

Static Acute EC50 for Daphnia Magna 48 hr is 3.08 mg/L.

This product reacts with water and moisture and is designed to harden to a tough polymeric material in contact with moisture. It is designed as a waterproofing membrane and thus is inherently NOT biodegradable.

12. DISPOSAL CONSIDERATIONS

please refer to section 5 - see also section 12 above. This is not RCRA hazardous even though the raw material is ignitable.

This is because this material reacts with water and moisture and is designed to harden to a tough polymeric material in contact with moisture/atmospheric moisture. Solid material should be incinerated . If Liquid is received, remove the lid and allow to harden.

13. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS:

The concentrations shown in this document are maximum or ceiling levels (weight %) to be used for regulations. Trade Secrets are indicated by "TS".

FEDERAL EPA:

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA):

Requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4 . Components present in this product at level which could require reporting under the statute are:

Chemical Name CAS Number % By Weight RQ
none

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (Rqs) in 40 CFR 355. Components present in this product at a level which could require reporting under this statute are:

Chemical Name CAS Number % By Weight
ONE

13. REGULATORY INFORMATION (continued)

Section 311

none

This is classified as an oil under Section 311 Water Pollution Act Discharge or spills into waterways/sewers which produce a visible sheen on surface water must be reported to the National Response center at 800-424-8802

Sections 312 require products be reviewed and applicable EPA Hazard definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute	Chronic	Fire	Pressure	Reactive
Hazard	Hazard	Hazard	Hazard	Hazard
yes	yes	yes	no	no

Product reacts with water and moisture in atmosphere to give CO2 and IBA - thus can become a pressure hazard

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>
none		

14. Other Information

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line : 800-535-0202 or 202-479-2449

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are contained on the chemical substance inventory list.

WHMIS (Canada) Hazard B/3
Europe Hazard Xi (irritant) R10 Flammable; R36/38 irritating to eyes and skin
S16 Keep away from sources of ignition - No Smoking
Canadian DSL Not all components of this product are contained on the Canadian DSL.

EUROPE All components of this product are listed on EINECS/ELINCS

Harmonized Tariff Number 3208.90.0000

15. Transport Information

D.O.T. Shipping Name, RESIN SOLUTION, FLAMMABLE;
Class 3, UN 1866, Packing Group II

The information herein is given in good faith, but no warranty expressed or implied is made. Fielco Adhesives urges suppliers and users of this product to evaluate its suitability and compliance with local regulations as we cannot foresee the nature of the final application nor final location of usage.

