

### 1 Identification

#### GHS Product Identifier

Ultra-Flex FRA 5000 Part A  
EvapLiner FRA Part A

#### Other means of identification

Fire Retardant Urethane prepolymer

#### Recommended use of the chemical and restriction on use

Fire Retardant Urethane Prepolymer. This product is one part of a 2 part product. Read and understand the hazard information on the SDS for Part B before using this product.

#### Supplier's details

Lava-Liner, Ltd.  
1550 G Tiburon Blvd. Suite 418  
Tiburon, CA 94920  
Ph. 415-829-9114 Fax: 415-829-9203  
www.lava-liner.com

#### Emergency phone number

Chemtrec 800-424-9300

### 2 Hazard(s) identification

#### Classification of the substance or mixture

Eye Damage Category 1  
Carcinogen Category 2

#### GHS label elements



Causes skin irritation

Causes serious eye damage

Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use personal protective equipment as required.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/ attention.

### 3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
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Asphalt	8052-42-4	232-490-9	20 - 65	Low viscosity bitumen is not expected to be heated or temperature raised to hazardous levels under normal usage.
Carbon Black	1333-86-4	231-153-3	1 - 3	Not likely to be inhaled as contained in liquid under normal circumstances.
Asphalt Flux (Same CAS as Asphalt)			0 - 2	See Asphalt Note Above
Polyether Polyol	003077-13-2		1 - 3	

## 4 First-aid measures

### Description of necessary first-aid measures

**Eye:** Immediately flush eyes with large quantities of water for at least 20 minutes, holding the eyelids apart.

**Skin:** Wipe material from skin then wash skin with plenty of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists.

**Ingestion:** DO NOT induce vomiting. Rinse mouth out with water. Never give anything by mouth to an unconscious or convulsing person. Get medical attention.

**Inhalation:** Remove victim to fresh air. Get medical attention if symptoms persist

### Most important symptoms/effects, acute and delayed

#### Most important symptoms and effects, acute and delayed:

May cause eye damage. May cause skin and respiratory irritation. Heated material will cause thermal burns. Breathing high concentrations of vapor as a result of spraying or atomizing may cause CNS effects to include dizziness, drowsiness, disorientation, vertigo, memory loss, visual disturbances, and difficulty with breathing. Carbon black is suspected of causing cancer.

## 5 Fire-fighting measures

### Suitable extinguishing media

Use foam, dry chemical, carbon dioxide, or Halon to extinguish fire. Use water to cool fire exposed containers and structures.

### Specific hazards arising from the chemical

Material at ambient temperature is not considered flammable but product will burn under fire conditions. Heat from fire can generate flammable vapor.

### Special protective actions for fire-fighters

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. This product flows freely when hot and should be treated as oil when exposed in a fire. Cool fire exposed containers with water.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing as described in Section 8.

### Environmental precautions

Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

### Methods and materials for containment and cleaning up

If solid, scoop up or sweep up and place into an appropriate container for disposal. Wash spill site with soap and water if needed. If liquid, contain with an inert material such as soil or clay. Allow to solidify and handle as a solid spill.

## 7 Handling and storage

### Precautions for safe handling

Avoid contact with the eyes, skin and clothing. Do not breathe aerosols and vapors. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers

closed when not in use.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all SDS precautions when handling empty containers. Do not cut, drill, weld, braze, etc. on or near containers, even empty containers.

### Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated area. Protect containers from physical damage. Store away from strong oxidizers.

## 8 Exposure controls/personal protection

### Control parameters

Component	Exposure Limit
Asphalt	0.5 mg/m <sup>3</sup> (Inhalable) TWA as benzene-soluble aerosol ACGIH TLV
Proprietary Component A (Note 1) (as Antimony compounds)	0.5 mg/m <sup>3</sup> TWA OSHA PEL 0.5 mg/m <sup>3</sup> TWA ACGIH TLV
Proprietary Component B (Note 1) (as Aluminum compounds)	15 mg/m <sup>3</sup> TWA OSHA PEL (Total dust) 5 mg/m <sup>3</sup> TWA OSHA PEL (Respirable fraction) 1 mg/m <sup>3</sup> TWA ACGIH TLV (Respirable)
Aliphatic Hydrocarbons	500 ppm TWA OSHA PEL 100 ppm TWA ACGIH TLV
Carbon Black (Note 1)	3.5 mg/m <sup>3</sup> TWA OSHA PEL 3 mg/m <sup>3</sup> (Inhalable) TWA ACGIH TLV

Note 1: Under normal conditions as contained in this product is not an inhalable material.

### Appropriate engineering controls

Use with adequate general or local exhaust ventilation to maintain exposure levels below applicable limits.

### Individual protection measures

**Respiratory Protection:** In operations where the occupational exposure limits are exceeded, an approved respirator appropriate for the form and concentration of the contaminants should be used. For asphalt fumes, an organic vapor/particulate respirator or supplied air respirator should be worn. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

**Skin Protection:** Wear insulated gloves when handling hot material. Impervious gloves recommended for handling ambient temperature solid material.

**Eye Protection:** Chemical goggles and face shield for handling hot material. Chemical goggles if eye contact is possible.

**Other protective equipment or clothing:** Wear long sleeved shirt and long pants to avoid skin contact. Wear thermally protective clothing if needed for handling hot material.

## 9 Physical and chemical properties

### Physical and chemical properties

**APPEARANCE:** Dark brown to black, viscous liquid

**ODOR:** Slight kerosene

**ODOR THRESHOLD:** Not determined

**pH:** Not determined

**MELTING / FREEZING POINT:** Not determined

**BOILING POINT / RANGE:** Not determined

**FLASH POINT:** 138°C (280.4°F) COC - ASTM D92

**EVAPORATION RATE:** Not determined

**FLAMMABILITY (Gas, Solid):** Not applicable.

**FLAMMABILITY LIMITS: LEL:** Not determined **UEL:** Not determined

**VAPOR PRESSURE:** Not determined

**VAPOR DENSITY:** (Air = 1) Not determined  
**RELATIVE DENSITY:** Not determined  
**SOLUBILITY IN WATER:** Negligible.  
**OCTANOL/WATER COEFFICIENT:** Not determined  
**AUTOIGNITION TEMPERATURE:** Not determined  
**DECOMPOSITION TEMPERATURE:** Not determined  
**VISCOSITY:** 2,800 – 3,500 cps at 25°C

## 10 Stability and reactivity

### Reactivity

Metal salts will coagulate this product.

### Chemical stability

Elevated temperatures and strong alkalis will promote the decomposition of this product. At temperatures below 120°F, decomposition is almost nonexistent.

### Possibility of hazardous reactions

None Known

### Conditions to avoid

Keep away from high temperatures, high heat, or flames.

### Incompatible materials

Metal Salts, Strong Alkalis

### Hazardous decomposition products

Carbon oxides, and short chains of hydrocarbon. This product at high temperatures produces hydrogen chloride gas. Heat from fire can generate flammable vapor.

## 11 Toxicological information

### Toxicological (health) effects

**Ingestion:** Swallowing may cause gastrointestinal irritation and possible intestinal blockage.

**Inhalation:** Inhalation of vapors and fumes may cause irritation of the nose throat and upper respiratory tract, coughing, and sore throat. Heated material will release toxic hydrogen chloride gas. Breathing high concentrations of vapor may cause CNS effects to include dizziness, drowsiness, disorientation, vertigo, memory loss, visual disturbances, and difficulty with breathing. Exposure to asphalt fumes may increase the risk of sunburn when exposed to sunlight. Inhalation of vapors or fumes from asphalt may cause sensitivity to light.

**Eye Contact:** Contact with hot material may cause severe burns. Contact with product at ambient temperature may cause serious eye damage.

**Skin Contact:** Contact with hot material may cause severe burns. Contact with product at ambient temperature may cause irritation. Prolonged or repeated contact may cause moderate dermatitis.

### Numerical measures of toxicity (such as acute toxicity estimates)

#### ACUTE TOXICITY VALUES:

No toxicity data available for product.

Asphalt: LD50 Oral Rat: >5000 mg/kg; LD50 Skin Rabbit: >2000 mg/kg

Proprietary Component A: LD50 Oral Rat: >34,600 mg/kg

Proprietary Component B: LD50 Oral Rat: 3654 mg/kg

2-Ethyl-1,3-hexanediol: LD50 Oral Rat: 1400 mg/kg; LD50 Skin Rabbit: 2000 mg/kg

Carbon Black: LD50 Oral Rat: 15400 mg/kg; LD50 Skin Rabbit: >3000 mg/kg

### Other information

**Carcinogenicity Listing:** An increase in skin tumors were observed in a skin painting study with rodents using bitumen. No increase in lung or other tumors were observed in a lifetime inhalation study with rats. A **slight** increase in lung cancer mortality was reported in a European study of paving and mastic asphalt but a follow-up epidemiological study sponsored by IARC concluded that there was no evidence that asphalt exposure causes lung cancer. Carbon black is listed by IARC as Possibly Carcinogenic to Humans (Group 2B). None of the other components greater than 0.1% are listed as a carcinogen by IARC, NTP, OSHA, ACGIH or the EU Substance Directive.

### **Delayed and immediate effects and also chronic effects from short and long term exposure**

**Chronic Effects:** Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

## **12 Ecological information**

### **Toxicity**

No data available for product.

Proprietary Component A: LC50: *Lepomis macrochirus* >530 mg/L/ 96 hr; EC50: *Daphnia magna* 423 mg/L/48 hr

Proprietary Component B: LC50 *Caenorhabditis elegans* (Nematode) 1.8 mg/L/96 hr

### **Persistence and degradability**

No data available for product

### **Bioaccumulative potential**

No data available for product.

### **Mobility in soil**

No data available for product.

### **Other adverse effects**

Contains a proprietary substance which is very toxic to aquatic life with long lasting effects. Avoid release to the environment.

## **13 Disposal considerations**

### **Disposal methods**

Dispose in accordance with local, state and federal environmental regulations.

## **14 Transport information**

### **Transport hazard class(es)**

Not Regulated for Transport

### **Packing group, if applicable**

Not Regulated

### **Environmental hazards**

No Data Available

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

See Section 15 for Reportable quantities.

## **15 Regulatory information**

## Safety, health and environmental regulations specific for the product in question

**CERCLA/SUPERFUND:** Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for this product, based on the RQ for Proprietary Component 1 (7% maximum) of 1,000 lbs, is 14,285 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA HAZARD CATEGORY (311/312):** Acute Health, Chronic Health

**SARA 313 INFORMATION:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Antimony Compound.

**EPA TSCA INVENTORY:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

### CALIFORNIA PROPOSITION 65

This product contains Carbon Black and trace chemical substances which are known to the State of California to cause cancer, birth defects, or other reproductive harm.

## 16 Other information

### Other information

**NFPA RATING:** Health = 3            Fire = 1            Instability = 1

**HMIS RATING:** Health = 3            Fire = 1            Physical Hazard = 1

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. If the product is used as a component in another product other than that provided by Lava-Liner, Ltd. this SDS information may not be applicable. This SDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).