

## 1 Identification

### GHS Product Identifier

Ultra-Flex Adhesion Promoter AP/AP174

### Other means of identification

Organosilane Adhesion Promoter

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

Promote Adhesion between organic/ inorganic substrates.

### 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

Health	Physical
Eye Irritant Category 2A Skin Sensitizer Category 1 Specific Target Organ Toxicity – Single exposure Category 3 (Narcotic effects)	Flammable Liquid Category 2

### GHS label elements

Danger



Highly flammable liquid and vapour

Causes serious eye irritation

May cause drowsiness or dizziness

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

Call a POISON CENTER/doctor/physician if you feel unwell.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

In case of fire: Use dry chemical, alcohol-resistant foam, carbon dioxide (CO@) or water spray to extinguish.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container to appropriate landfill or destroy in accordance with local and national regulations.

### 3 Composition/information on ingredients

Description	CAS Number	EINECS Number	%	Note
Isopropanol	67-63-0		99	
Organosilane Blend			1	Proprietary

### 4 First-aid measures

#### Description of necessary first-aid measures

**Inhalation:** Immediate remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. If breathing has stopped, administer CPR. Get immediate medical attention.

**Skin:** Wash skin thoroughly with soap and water after handling. Get medical attention if irritation or rash develop. Remove and launder contaminated clothing before reuse.

**Eye:** Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Remove contact lenses if present after the first 5 minutes and continue flushing. Get immediate medical attention.

**Ingestion:** Do not induce vomiting. If the victim is conscious and alert, rinse the mouth with a small amount of water. Get medical advice by calling a poison center or hospital emergency department.

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

Causes eye irritation. May cause allergic skin reaction. Inhalation of vapors may cause abdominal pain and nervous system effects including dizziness, drowsiness, nausea, vomiting, visual disturbances and unconsciousness.

#### Indication of immediate medical attention and special treatment needed, if necessary

Immediate medical attention is required for eye contact, and allergic skin reactions.

### 5 Fire-fighting measures

#### Suitable extinguishing media

For large fires: Use carbon dioxide or dry chemical. For small fires: carbon dioxide, dry chemical, alcohol-resistant foam, or halon. Do not use solid water stream.

## Specific hazards arising from the chemical

Highly flammable liquid and vapor. Vapors are heavier than air and will travel along surfaces to remove ignition sources and flash back. Vapors will collect in low areas. Vapors may be ignited by static sparks. Flames may be invisible in daylight. Burning may produce carbon monoxide and unidentified organic compounds.

## Special protective actions for fire-fighters

Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Do not breathe combustion products. Do not release water from firefighting to sewers or waterways.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear appropriate protective equipment. Eliminate all ignition sources and ventilate the area with explosion-proof equipment. Prevent entry into basements or confined areas.

### Methods and materials for containment and cleaning up

Stop spill at the source if it is safe to do so. Absorb with an inert material. Use non-sparking tools and equipment. Collect into a suitable container for disposal. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

## 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. Remove contaminated clothing and launder before re-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. Residue inside containers may ignite explosively leading to injury or death.

### Conditions for safe storage, including any incompatibilities

Keep containers closed when not in use. Keep away from excessive heat, flames and other sources of ignition. Do not store or handle in aluminum equipment at temperatures above 120 °F.

## 8 Exposure controls/personal protection

### Control parameters

Component	Exposure Limit
Isopropanol	400 ppm TWA OSHA PEL 200 ppm TWA, 400 ppm STEL ACGIH TLV
Organosilane Blend	None Established

### Appropriate engineering controls

Use with adequate ventilation to maintain exposure levels below the occupational exposure limits.

### Individual protection measures

**Respiratory Protection:** In operations where exposure limits are exceeded or exposure levels are unknown, a NIOSH or other authority approved supplied air respirator appropriate for the form and concentration of the contaminants should be used. Air-purifying respirators may be used under some conditions with a cartridge change schedule that is based on the expected airborne exposure levels. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.

**Skin Protection:** Wear impervious gloves such as butyl rubber or nitrile rubber to avoid skin contact. Contact your glove supplier for specific recommendations. Wear protective clothing as needed to avoid skin contact and prevent contamination of personal clothing.

**Eye Protection:** Chemical safety goggles recommended.

**Other protective equipment or clothing:** Wear protective clothing as needed to avoid skin contact and prevent contamination of personal clothing.

## 9 Physical and chemical properties

### Physical and chemical properties

**APPEARANCE:** Colorless liquid

**ODOR:** Ethyl alcohol, sharp and somewhat unpleasant.

**ODOR THRESHOLD:** Not determined

**pH:** Not determined

**MELTING / FREEZING POINT:** -88.3°C (-127°F)

**BOILING POINT / RANGE:** 82°C (180°F)

**FLASH POINT:** -4°C (24.5°F)

**EVAPORATION RATE:** Not determined

**FLAMMABILITY (Gas, Solid):** Flammable liquid

**FLAMMABILITY LIMITS: LEL:** 2% **UEL:** 12.7%

**VAPOR PRESSURE:** 44 mmHg at 25°C

**VAPOR DENSITY:** (Air = 1) 2.1

**RELATIVE DENSITY:** 0.79

**SOLUBILITY IN WATER:** Miscible.

**OCTANOL/WATER COEFFICIENT:** Not determined

**AUTOIGNITION TEMPERATURE:** 432°C (810°F)

**DECOMPOSITION TEMPERATURE:** Not determined

**VISCOSITY:** Not determined

## 10 Stability and reactivity

### Reactivity

This material is not reactive under normal conditions.

### Chemical stability

Stable under recommended storage and handling conditions.

### Possibility of hazardous reactions

May react with concentrated nitric and sulfuric acids, strong oxidizers, aldehydes, and halogen compounds.

### Conditions to avoid

Avoid heat, sparks, flames, and all other sources of ignition.

### Incompatible materials

Concentrated nitric and sulfuric acids, strong oxidizers, aldehydes, and halogen compounds. Do not store or handle in aluminum equipment at temperatures above 120 °F.

### Hazardous decomposition products

May produce carbon monoxide and unidentified organic compounds.

## 11 Toxicological information

### Toxicological (health) effects

**Ingestion:**

Swallowing may cause gastrointestinal effects including abdominal pain, nausea and diarrhea and central nervous system effects including dizziness, drowsiness, nausea, vomiting, and unconsciousness. Based on animal data, this product is not expected to be toxic by ingestion.

**Inhalation:** May cause respiratory tract irritation and central nervous system effects. Exposure to high concentrations has a narcotic effect, producing symptoms such as dizziness, drowsiness, headache, and unconsciousness.

**Eye Contact:** Causes irritation of the eyes with redness, pain and tearing. Corneal injury is possible.

**Skin Contact:** May cause allergic skin reaction (rash, itching and swelling).

**Chronic Effects:** Repeated skin contact may cause sensitization with allergic reaction. Symptoms can occur immediately following exposures or can be delayed for several hours.

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

Product calculated ATE – GHS Method:

LD50: Rat oral 4848 mg/kg;

LD50: Rabbit skin 9137 mg/kg;

LC50: Rat Inhalation 27 mg/L/4 hr

**Other information**

**Carcinogenicity Listing:** None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

**12 Ecological information****Toxicity**

No data for product

Isopropanol:	LC50 fathead minnows ( <i>Pimephales promelas</i> ), 9,640-10,400 mg/L/96 hr EC50 water flea ( <i>Daphnia magna</i> ), immobilization: 7,550-13,299 mg/L/48 hr EC50 alga <i>Scenedesmus</i> sp., Growth rate inhibition: >1,000 mg / 72 hr
Organosilane Blend:	EC50 water flea ( <i>Daphnia magna</i> ), : 0.91 mg/L/48 hr (Calculated)

**Persistence and degradability**

Isopropanol: Is readily biodegradable

Organosilane Blend: Not readily biodegradable.

**Bioaccumulative potential**

Isopropanol: Not Bio-accumulative.

Organosilane Blend: Not Bio-accumulative.

**Mobility in soil**

Isopropanol: Potential for mobility in soil is very high

Organosilane Blend: No data available for product.

**Other adverse effects**

Toxic to aquatic life with long lasting effects.

**13 Disposal considerations****Disposal methods**

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

## 14 Transport information

### UN Number

1219

### UN Proper Shipping Name

Isopropanol / Isopropyl Alcohol

### Transport hazard class(es)

LAND TRANSPORT ADR/RID:  
SUBSTANCE NAME: Isopropanol (Isopropyl alcohol)  
UN NUMBER: UN1219  
ADR/RID CLASS: 3  
ITEM NUMBER: 3(b)  
WARNING SIGN/LABEL: 3  
HAZARD ID NUMBER: 33

AIR TRANSPORT IATA/ICAO:  
PROPER SHIPPING NAME: Isopropanol  
UN/ID NUMBER: UN1219  
IATA/ICAO CLASS: 3  
PACKAGING GROUP: II  
LABEL: Flammable liquid

MARITIME TRANSPORT IMDG:  
CORRECT TECHNICAL NAME: Dimethyl carbinol  
UN/ID NUMBER: UN1219  
IMDG CLASS: 3.2  
PACKAGING GROUP: II  
EmS No.: 3-06  
MFAG Table No.: 305  
IMDG CODE PAGE: see 3244

### Packing group, if applicable

II

## 15 Regulatory information

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

**CERCLA/SUPERFUND:** Spills of this product are not required to be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

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

**SARA 313 INFORMATION:** This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Isopropyl Alcohol @ 80%.

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

### CALIFORNIA PROPOSITION 65

This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity: None

## 16 Other information

## Other information

**NFPA RATING:** Health = 2 Fire = 3 Instability = 0

**HMIS RATING:** Health = 2 Fire = 3 Physical Hazard = 0

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).