

MATERIAL SAFETY DATA SHEET

No. Z-9310E-16

Identity (As Used on Label and List)

- **Date Prepared:** July 27, 1999
- **Date Revised:** July 6, 2011

LUMIFLON LF910LM

1. PRODUCT AND COMPANY INFORMATION

Product Name: LUMIFLON LF910LM

Synonym: Fluoropolymer varnish

General Use: Paints

MSDS Number: Z-9310E

Manufacturer

Company Name: ASAHI GLASS CO., LTD. Chemicals Company Fluorochemicals Division

Address: 1-12-1, Yurakucho, Chiyoda-ku, Tokyo, 100-8405, Japan

Telephone No.: +81-3-3218-5574

Facsimile No.: +81-3-3218-7843

Supplier

Company Name: AGC Chemicals Americas, Inc.

Address: 55 East Uwchlan Ave. Suite 201, Exton, PA 19341, USA

24 Hour Medical Emergency Telephone #: (800)420-8479

24 Hour Transportation Emergency # (CHEMTREC): (800) 424-9300

Customer Service Number: (800) 424-7833

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	%
Fluoropolymer	88795-12-4	66
Xylene	1330-20-7	18
Ethylbenzene	100-41-4	16

OSHA Hazardous Components (29 CFR 1910.1200)

Xylene and Ethylbenzene are hazardous components.

3. HAZARDS IDENTIFICATION

Emergency overview

Flammable

May be harmful by inhalation, ingestion, or skin absorption.

Potential Health Effects

Inhalation:

May cause irritation to the respiratory tract. High vapor concentrations may cause headaches, nausea and dizziness and can lead to loss of smell. The inhalation of droplets can lead to pneumonia.

In contact with skin:

Can be absorbed through skin. Repeated exposure to the liquid may give rise to cracking and defacing of the skin, possibly leading to irritation.

In contact with eyes:

Liquid splashes and high vapor concentrations can lead to irritation in the eyes.

Ingestion: Liquid ingestion may cause severe gastrointestinal pain, abdominal cramps, nausea, vomiting, narcosis and central nervous system depression.

4. FIRST AID MEASURES

- **Inhalation:**
Remove victims to fresh air. Seek medical attention.
- **Skin contact:**
Remove contaminated clothing and wash well affected skin with plenty of soap and water. Seek medical attention.
- **Eye contact:**
Flush eyes including eyelids, with plenty of water for at least 15 minutes. Get medical attention.
- **Ingestion:**
Wash mouth out with water; give half pint water to drink. Don't induce vomiting unless directed to do by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

5. FIRE-FIGHTING MEASURES

- **Suitable extinguishing media:** Foam, Dry chemicals, CO₂
- **Unsuitable extinguish media/methods:** DO NOT USE WATER!
- **Hazardous combustion product or gases:** If involved in a fire or if overheated, there is a risk of generation of toxic degradation products such as: hydrogen chloride, hydrogen fluoride, carbonyl fluoride, carbon monoxide, and carbon dioxide.
- **Special protective equipment for fire fighters:** Wear self-contained breathing apparatus in confined areas or when exposed to combustion products.
- **Additional information:** Move container from fire areas if it can be done without risk. Cool containers with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Keep public away.
Ensure adequate ventilation.
Use personal protective clothing

Environmental precautions:

Shut off source of ignition and ventilate spill area.
Do not wash away into shower or waterway.

Methods for cleaning up/taking up:

Absorb or contain liquid with inert material and dispose of in accordance with applicable regulations.
Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.

Additional information:

Information for safe handling looks up chapter 7.
Information for disposal looks up chapter 13.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Atmospheric levels of vapor should be maintained as low as reasonably possible and below the Occupational Exposure Limit.
Shut off all gas pilot and electrical (spark or hot wire) igniters and other sources of ignition during use and until all vapors (odors) are gone.
Prevent build-up of electrostatic charges (e.g. by grounding).

Storage

Floor surface of storage place should be made of non-permeable materials to the ground such as concrete. No fire and smoking in area of storage.
Keeping at temperature not exceeding 25deg.C(77deg.F) is preferred when storing it for a long term.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limit Values

Chemical name	OSHA (1993)	ACGIH (2009)	NIOSH
Xylene	PEL-TWA: 100ppm	TLV-TWA: 100ppm STEL 150ppm	TWA 100 ppm (435 mg/m ³) ST 150 ppm (655 mg/m ³)
Ethylbenzene	PEL-TWA: 100ppm	TLV-TWA: 100ppm STEL 125ppm	REL: TWA 100ppm (435 mg/m ³) ST 125ppm (545 mg/m ³)

Exposure controls

Occupational exposure controls

Engineering Controls:

Use with appropriate local exhaust ventilation.

Personal protection:

- **Respiratory protection:** Chemical cartridge respirator with an organic vapor cartridge.
- **Hand protection:** Impermeable gloves
- **Skin protection:** Suits as needed by the circumstance of use.

- **Eye protection:** Safety glass, goggles, face shield

Additional recommendations: Eyewash and safety shower should be ready for use.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor:** Transparency liquid, Color No.2MAX(Gardner)
- **Chemical Formula:** Trade Secret
- **Flash Point (method):** 25.5deg.C (77.9deg.F) (S.C.C.)
- **Lower Explosive Limit:** 1-1.1vol% (Xylene)
- **Upper Explosive Limit:** 7-7.6vol% (Xylene)
- **Autoignition Temperature:** 464-564deg.C (867.2-1047.2deg.F)(Xylene)
- **Boiling Point:** 139deg.C(282.2deg.F)(Xylene)
- **Melting Point:** N/D
- **Vapor Pressure (20deg.C):** N/D
- **Specific Gravity (25deg.C):** 1.15-1.19
- **Solubility (20deg.C) in water:** insoluble(Fluoropolymer)
- **pH value (20deg.C):** N/A
- **Partition Coefficient:** N/D
- **Viscosity(Stokes)(25deg.C):** 3.5-8.0cm²/s
- **Solvent content:** Xylene 18%, Ethylbenzene16%

10. STABILITY AND REACTIVITY

Conditions to avoid: Overheating and cooling

Stability: Stable under normal temperature and pressure.

Materials to avoid (Incompatibilities): Strong oxidizing agents, Strong Reducing agents, Strong bases

Hazardous decomposition products:

In a fire situation, hydrogen chloride, hydrogen fluoride, carbon monoxide and carbon dioxide may liberate.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: N/D

Genetic studies: Ames Assay: N/D

Other information (solvents)

Acute toxicity:

Skin Irritation (rabbit): 500mg/24h MODERATE (Standard Draize Test) (Xylene)

Eye Irritation (rabbit): 5mg/24h SEVERE (Standard Draize Test) (Xylene), 500mg SEVERE (Standard Draize Test) (Ethylbenzene)

LD50 oral (rat): 4.3 g/kg (Xylene), 3.5 g/kg (Ethylbenzene)

LC50 (rat): 5000 ppm/4h (Xylene)

Genetic studies:

Chromosome aberration test (CHO): negative (NTP 1987) (Xylene), negative (NTP 1984) (Ethylbenzene)

Sister chromatid exchange test (CHO): negative (NTP 1987) (Xylene), negative (NTP 1984) (Ethylbenzene)

Mouse Lymphoma Cells: positive (NTP 1986) (Ethylbenzene)
Salmonella assays: negative (NTP 1984) (Ethylbenzene)

Carcinogenicity

Ethylbenzene IARC:2B

12. ECOLOGICAL INFORMATION

Biodegradability: N/D

Bioaccumulation: N/D

Other information: N/D

13. DISPOSAL CONSIDERATIONS

Reuse when possible the residual product. Send waste product for thermal destruction, using high-temperature incinerators designed to burn fluorine compounds.

Because of a flash point below 60 deg.C (140 degrees Fahrenheit), discarded product is a hazardous waste, No.D001, under RCRA, 40CFR 261.21.

Reuse containers when possible, after thorough washing. Dispose of waste containers to authorized landfill, in accordance with local laws and regulations.

Comply with all federal, state and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATION

US DEPARTMENT OF TRANSPORTATION(DOT)

Hazardous Materials: Yes

Hazardous Materials Description and Proper Shipping Name: RESIN SOLUTION

Hazardous Class or Division: 3

Identification Number: UN1866

Packing Group: III

Label(s) Required: 3

Sea transport

IMDG

Class: 3

Packing Group: III

UN Number: 1866

Proper Shipping Name: RESIN SOLUTION

Marine Pollutant: No

Air transport

ICAO/IATA

Class: 3

Packing Group: III

UN Number: 1866

Proper Shipping Name: RESIN SOLUTION

15. REGULATORY INFORMATION

OSHA STATUS: This product is hazardous under 29 CFR 1910.1200.

TSCA STATUS: All components are listed on the TSCA Inventory.

SARA TITLE III

SECTION 302(40 CFR 355):

None of the Chemicals in this product have a TPQ.

Name	CERCLA/SERA-hazardous substances and their Reportable Quantities
Xylene	=100 lb (45.4kg) final RQ
Ethyl Benzene	=1000 lb (454kg) final RQ

SECTION 311/312(40 CFR 370): Acute Health Hazard, Chronic Health Hazard, Fire Hazard

SECTION 313(40 CFR 372): Ethylbenzene, Xylene

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. OTHER INFORMATION

- **N/E:** Not Established
- **N/A:** Not Applicable
- **N/D:** No Data
- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **S.C.C.:** Seta Closed Cup

NFPA CODES

Flammability	Hazard	Instability
3	1	1

Revision Summary: Section 1-16(2004.6) Product name(2004.12)Section 7.9.11(2006.2)
1, 8(2006.9) 1(2009.4) 1(2009.9) 8,9 (2011.7)

The product is not designed for special applications such as pharmaceutical, medical use.

The information given in this safety data sheet is for safety purposes only. It is given in good faith and based on the best knowledge and experience of the company at the date of issuing.

The company is not responsible for any loss or damage caused by the use of the product in applications for which it was not intended or for conditions of use contrary to the recommendations in this safety data sheet.
