# SAFETY DATA SHEET

**SDS No. R-1974HCS-02**

- **Date Prepared:** October 20, 2014
- **Date Revised:** October 24, 2016

# LUMIFLON LF9721

## 1. IDENTIFICATION

**Product Name:** LUMIFLON LF9721
**Synonym:** Fluoropolymer varnish
**Recommended use of the chemicals:** Paints
**MSDS Number:** R-1974HCS

**Manufacturer**
**Company Name:** ASAHI GLASS CO., LTD.
**Address:** 1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan
**Telephone Number for Information:** +81(0)3-3218-5504
**Facsimile Number for Information:** +81(0)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. HAZARDS IDENTIFICATION

**The hazard classification**
Flammable Liquid: Category3
Aspiration Toxicity: Category2

**Signal word**
Warning

**Hazard statements**
H226: Flammable liquid and vapour
H305: May be harmful if swallowed and enters airways

**Pictograms**

**Precautionary statements**
P210 Keep away from heat, sparks, open flame, hot surfaces –No smoking
P243 Take precautionary measures against static discharge
P280 Wear protective gloves / protective clothing / eye protection /face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P403+P235 Store in a well-ventilated place. Keep container tightly closed.
P501Dispose of contents/containers according to local/national regulations

**Description of any hazards not otherwise classified**
Carbonyl fluoride and hydrogen fluoride may be evolved when the product is burned. Inhalation of fumes from overheating the product may cause eye, nose, throat,
and lung irritation. Inhalation of low concentration of Hydrogen Fluoride can initially include symptoms of choking, cyanosis, and pulmonary edema.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| **Components** | **CAS No.** | **%** |
|---|---|---|
| Fluoropolymer | Trade secret | 70 |
| Ethyl 3-ethoxypropionate | 763-69-9 | 30 |

**OSHA Hazardous Components (29 CFR 1910.1200)**
Ethyl-3-ethoxypropionate is hazardous component.

## 4. FIRST AID MEASURES

- **Inhalation:** Remove to fresh air. Seek medical attention.
- **Skin contact:** Remove contaminated clothing immediately and wash affected skin with soap and water. Seek medical attention.
- **Eye contact:** Flush eyes with plenty of water for at least 15 minutes, Get medical aid immediately.
- **Ingestion:** Wash mouth out with water; give half pint water to drink. Do not induce vomiting. Get medical aid immediately.

## 5. FIRE-FIGHTING MEASURES

- **Suitable extinguishing media**: Foam, Dry chemicals, CO2
- **Unsuitable extinguish media/methods:** DO NOT USE WATER!
- **Hazardous combustion product or gases:** Toxic by-product, including HF, HCl may be formed.
- **Special protective equipment for fire fighters:** Wear self-contained breathing apparatus in confined areas or when exposed to combustion products.
- **Additional information:** Keep containers cool by spraying with water if exposed to fire. Do not use water jet.

## 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.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Ingredients with occupational exposure limits to be monitored**
N/A

**Exposure controls**
**Occupational exposure controls**
**Engineering Controls:**
Use local exhaust when large amounts are released.

**Personal protection:**
**Respiratory protection:** Chemical cartridge respirator with an organic vapor cartridge.
**Eye /Skin protection:** Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Odour :** Ester specific
- **Odour threshold:** No data
- **pH value in delivery state:** Not applicable
- **Freezing point:** -50 °C (Ethyl 3-ethoxypropionate)
- **Boiling Point:** 165 °C (Ethyl 3-ethoxypropionate)
- **Flash Point (Method Used):** 58°C (Ethyl 3-ethoxypropionate, Tag Closed Cup)
- **Evaporation Rate (Butyl acetate = 1):** 0.1 (Ethyl 3-ethoxypropionate)
- **Flammability:** Flammable
- **Flammable Limits:** Lowe Explosive Limit 1.05 %v/v (88°C Ethyl 3-ethoxypropionate ),
- Upper Explosive Limit N/A
- **Vapour Pressure:** 0.7mmHg at 20°C (Ethyl 3-ethoxypropionate)
- **Vapour Density (Air = 1):** 5 (Ethyl 3-ethoxypropionate)
- **Specific Gravity:** 1.2g/$cm^3$ (20°C)
- **Solubility in Water:** 54.1g/l (20°C , Ethyl 3-ethoxypropionate)
- **Partition coefficient, n-octanol/water:** 1.35(Ethyl 3-ethoxypropionate)
- **Auto-ignition temperature:** 377°C(Ethyl 3-ethoxypropionate)
- **Decomposition temperature:** No data
- **Viscosity:** N/A
- **Explosive properties:** not explosive
- **Oxdising properties:** not oxidising

## 10. STABILITY AND REACTIVITY

**Conditions to avoid:** over heating

**Stability:** Stable under normal temperature and pressure.

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

**Hazardous decomposition products:** N/D

**Hazardous polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity** / ingestion
LD50 oral (rat) 5,000mg/kg (Ethyl 3-ethoxypropionate)

**Skin corrosion/irritation** (Ethyl 3-ethoxypropionate)
Rabbit 4h uncovered, minor erythema and edema in 1/6.

**Serious eye damage/irritation** (Ethyl 3-ethoxypropionate)
Rabbit 0.1ml, minor conjunctiva irritation with significant discharge, no corneal injury

**Repeated dose toxicity**(Ethyl 3-ethoxypropionate)
Following oral administration to rats, the no observed adverse effect level (NOAEL) for Ethyl3-Ethoxypropionate is 1000 mg/kg bw/day based on slight changes in liver enzymes. The no observed effect level is 100 mg/kg bw/day

In an inhalation study of rats the no-observed effect level for toxicity is 250 ppm EEP and the no-observed adverse effect level is 500 ppm with the principal change being weight gain depression following exposure to 500 and 1000 ppm EEP for 13 weeks.

**Sensitisation**(Ethyl 3-ethoxypropionate)
No positive response was seen in any of guinea pigs tested in the first and second reading in a standardized test for sensitization potential

**Mutagenicity**(Ethyl 3-ethoxypropionate)
Ethyl 3-ethoxypropionate was not mutagenic in in-vitro assays.

**Reproductive toxicity**(Ethyl 3-ethoxypropionate)
Vapor concentrations as high as 1000 ppm of EEP did not produce teratogenicity in the rat.
Slight fetotoxicity was seen at 1000 ppm, a concentration which also produced significant maternal toxicity. Slight maternal toxicity was also evident at concentrations of 250 and 500 ppm of EEP.

**Aspiration Toxicity**(Ethyl 3-ethoxypropionate) Category 2

## 12. ECOLOGICAL INFORMATION

**Biodegradability:** N/D
**Bioaccumulation:** N/D
**Other information:**
Toxic to aquatic organisms
LC50, fathead minnow (Pinephales promelas), 96 hr: 88mg/l (Ethyl 3-ethoxypropionate)
EC50 (algae, 72hr) >114mg/l (Ethyl 3-ethoxypropionate)
EC50 (Daphnia magna, 48hr) >479.7mg/l (Ethyl 3-ethoxypropionate)

## 13. DISPOSAL CONSIDERATIONS

Waste resin solution should be poured on to an impermeable area of ground in a suitably remote spot.

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 **,**flammable
**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 **,**flammable
**Marine Pollutant:** No

**Air transport**
**ICAO/IATA**
**Class:** 3
**Packing Group:** III
**UN Number:** 1866
**Proper Shipping Name:** RESIN SOLUTION **,**flammable

## 15. REGULATORY INFORMATION

**OSHA STATUS:** This product is hazardous under 29 CFR 1910.1200.
**TSCA STATUS:** All components are in full compliance with TSCA Inventory Regulations.
**CERCLA/SUPERFUND (40 CFR 117, 302)**
N/A

**SARA TITLE III**
**SECTION 302(40 CER 355):** Not applicable
**SECTION 311/312(40 CFR 370):** Acute Health Hazard, Chronic Health Hazard, Fire Hazard
**SECTION 313(40 CFR 372):** Not applicable

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

NFPA CODES

| Flammability | Hazard | Instability |
|---|---|---|
| 2 | 1 | 2 |

Revision Summary: updated according to 29CFR 1910.1200(g) , Section 9(2016.10)

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.