

SAFETY DATA SHEET

SDS No. R-1973HCS-02

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

LUMIFLON LF9716

1. IDENTIFICATION

Product Name: LUMIFLON LF9716
Synonym: Fluoropolymer varnish
Recommended use of the chemicals: Paints
MSDS Number: R-1973HCS

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.
P501 Dispose 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**: Lower 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/ cm³ (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
- **Oxidising 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 (*Pimephales 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.
