

SAFETY DATA SHEET

SDS No. J-1180HCS-05

- **Date Prepared:** October 20, 2014
- **Date Revised:** May 7, 2020

LUMIFLON LF600X

1. IDENTIFICATION

Product Name: LUMIFLON LF600X
Synonym: Fluoropolymer varnish
Recommended use of the chemicals: Paints
MSDS Number: J-1180HCS

Manufacturer

Company Name: AGC Inc.
Address: 1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan
Telephone Number for Information: +81(0)3-3218-5040
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: Category 3
Acute toxicity(inhalation): Category 4
Skin corrosion and irritation: Category 2
Serious eye damage and eye irritation: Category 2A
Carcinogenicity: Category 2
Reproductive toxicity: Category 1B
Specific target organ systemic toxicity after single exposure: Category 1 and 3
Specific target organ systemic toxicity after repeated exposure: Category 1

Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness and dizziness.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H370 Causes damage to organs (liver, respiratory organs, kidney, central nervous system).

H372 Causes damage to organs (respiratory organs, nervous system) through prolonged or repeated exposure.

Pictograms



Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hand thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response precautionary statements

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Call a POISON CENTER/ doctor.

P273 Avoid release to the environment.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use CO2 for extinction.

P391 Collect spillage.

Storage precautionary statements

P235 Keep cool.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal

P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

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.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	%
Fluoropolymer	Trade Secret	50
Xylene	1330-20-7	26
Ethylbenzene	100-41-4	24

OSHA Hazardous Components (29 CFR 1910.1200)

Xylene, Ethylbenzene are hazardous components.

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

Ingredients with occupational exposure limits to be monitored

Chemical name	OSHA (1993)	ACGIH (2015)	NIOSH
Xylene	PEL-TWA: 100ppm	TLV-TWA: 100ppm STEL 150ppm	REL: TWA 100 ppm (435 mg/m ³) ST 150 ppm (655 mg/m ³)
Ethylbenzene	PEL-TWA: 100ppm	TLV-TWA: 20ppm	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: Eye wash and safety shower should be ready for use.

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance and Odor:** Transparent liquid, Color No.2MAX(Gardner)
- **Chemical Formula:** Trade secret
- **Flash Point (method):** 23.9deg.C(75.02deg.F) (Tagliabue(Tag)Closed Cup)
- **Lower Explosive Limit:** 1-1.1vol% (Xylene)
- **Upper Explosive Limit:** 7-7.6vol% (Xylene)
- **Autoignition Temperature:** 432deg.C(809.6deg.F) (Ethylbenzene)
- **Boiling Point:** 136deg.C (276.8deg.F) (Ethylbenzene)
- **Melting Point:** N/D
- **Vapor Pressure (20deg.C):** N/D
- **Specific Gravity:** 1.08
- **Solubility (20deg.C) in water:** insoluble (Fluoropolymer)
- **pH value (20deg.C):** N/A
- **Partition Coefficient:** N/D
- **Viscosity(Stokes):** (ISO2431:150.5sec)

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, carbonyl 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:

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

LC50 inhal (rat): 6,350-6,700 ppm/4h (Xylene), 4,000 ppm/4h (Ethylbenzene)

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)

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

Xylene IARC:3

Ethylbenzene IARC:2B

12. ECOLOGICAL INFORMATION

Biodegradability: N/D

Bioaccumulation: N/D

Other information: N/D

Xylene

Fish (rainbow trout) LC50(96h) = 3.3 mg / L

Acute Category 2

Chronic Category 2

Ethylbenzene

Crustacean (Brown Shrimp) LC50(96h) = 0.4mg / L

Acute Category 1

Chronic Category 2

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 60deg.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, 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: Yes

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 listed on the TSCA Inventory.

CERCLA/SUPERFUND (40 CFR 117, 302)

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

SARA TITLE III

SECTION 302(40 CFR 355): Not applicable

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

SECTION 313(40 CFR 372): Ethylbenzene, Xylene

California Proposition 65

WARNING: This product can expose you to chemicals including Ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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
3	1	1

Revision Summary: updated according to 29CFR 1910.1200(g), Section 3(2016.1), Section 1(2018.7), Section 15(2018.12), Section 2, 11, 12(2020.5)

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.
