

SAFETY DATA SHEET

SDS No. Z-3220HCS-03

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

LUMIFLON LF552

1. IDENTIFICATION

Product Name: LUMIFLON LF552
Synonym: Fluoropolymer varnish
Recommended use of the chemicals: Paints
MSDS Number: Z-3220HCS

Manufacturer

Company Name: ASAHI GLASS CO., LTD.
Address: 1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan
Telephone Number for Information: +81(0)3-3218-5040
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(oral): Category 4
Acute toxicity(dermal): Category 4
Acute toxicity(Vapours): Category 4
Skin corrosion and irritation: Category 2
Serious eye damage and eye irritation: Category 2
Skin sensitization: Category 1
Germ cell mutagenicity: Category 2
Carcinogenicity: Category 2
Reproductive toxicity: Category 1
Specific target organ systemic toxicity after single exposure: Category 1,2 and 3
Specific target organ systemic toxicity after repeated exposure: Category 1 and 2

Signal word

Danger

Hazard statements

H226: Flammable liquid and vapour
H302: Harmful if swallowed

H312: Harmful in contact with skin.
H332: Harmful if inhaled.
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H341: Suspected of causing genetic defect
H351: Suspected of causing cancer
H360: May damage fertility or the unborn child
H370: Causes damage to organs
H371: May causes damage to organs < liver, blood, kidney, central nervous system, eye >
H372: Cause damage to organs < central nervous system, bone> through prolonged or repeated exposure.
H373: May cause damage to organs < Blood, respiratory, nervous system, eye> through prolonged or repeated exposure.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness

Pictograms



Precautionary statements

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local regulations.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Description of any hazards not otherwise classified

May be fatal if swallowed.
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	40
Aromatic Hydrocarbons	64742-94-5	>38

Naphthalene	91-20-3	<5
Cyclohexanone	108-94-1	12
Xylene	1330-20-7	<2.5
Ethylbenzene	100-41-4	<2.5

OSHA Hazardous Components (29 CFR 1910.1200)

Aromatic Hydrocarbons, Naphthalene, Cyclohexanone Xylene and 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. 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Ingredients with occupational exposure limits to be monitored

Ingredient name: Aromatic Hydrocarbons

MAK-Values(2013) : N/E

ACGIH(2015) TLV-TWA: none

Ingredient name: Naphthalene

MAK-Values(2013) : N/E

ACGIH(2015) TLV-TWA: 10ppm **STEL:** 15ppm

Ingredient name: Cyclohexanone

MAK-Values(2013) : Carcinogenic Substance. The database is insufficient for the establishment of a MAK .

ACGIH(2015) TLV-TWA: 20ppm **STEL:** 50ppm

Ingredient name: Xylene

MAK-Values(2013) : 100ppm

ACGIH(2015) TLV-TWA: 100ppm **STEL:** 150ppm

Ingredient name: Ethylbenzene

MAK-Values(2013) : 20ppm

Carcinogenic Substance. The database is insufficient for the establishment of a MAK .

ACGIH(2015) TLV-TWA: 20 ppm

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:** Suites 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:** Colorless liquid.
- **Chemical Formula:** Trade Secret
- **Flash Point (method):** 46.8deg.C (116.2deg.F) (Tag Closed cup)
- **Lower Explosive Limit:** N/D
- **Upper Explosive Limit:** N/D
- **Autoignition Temperature:** N/D
- **Boiling Point:** 138-144deg.C (280.4-291.2deg.F)(Xylene)
- **Melting Point:** N/D
- **Vapor Pressure (20deg.C):** N/D
- **Specific Gravity (25deg.C):** 1.04-1.08
- **Solubility (20deg.C) in water:** insoluble
- **pH value(20deg.C) :** N/A
- **Partition Coefficient:** N/D
- **Viscosity(Stokes)(25deg.C):** 2.4-4.8cm²/s

10. STABILITY AND REACTIVITY

Conditions to avoid: Overheating and cooling

Stability: Stable under normal temperature and pressure.

Materials to avoid (Incompatibilities): Strong oxidants, strong reducing agents or strong bases

Hazardous decomposition products:

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

11. TOXICOLOGICAL INFORMATION

(Fluoropolymer)

Acute toxicity: N/D

Genetic studies: Ames Assay: Negative

(Cyclohexanone)

Acute toxicity:

Eye Irritation (rabbit): 0.25mg/24h SEVERE (Standard Draize Test)

LD50 oral (mouse): 1.4g/kg

LC50 (rat): 8000 ppm/4h

(Naphthalene)

Acute toxicity:

LD50 oral (rat): 1.25g/kg

(Xylene)

Acute toxicity:

LD50 oral (rat): 4.3g/kg

(Ethylbenzene)

LD50 oral (rat): 3.5 g/kg

Sensitization: Cyclohexanone

Carcinogenicity: Naphthalene IARC:2B, Ethylbenzene IARC :2B

Health studies have shown many petro hydrocarbons and synthetic lubricants pose potential human health risks, which may vary from person to person. As a precaution, exposure to liquids, vapors, mists/fumes should be minimizing. Products has low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingested or vomiting may cause mild to severe pulmonary injury and possibly death. High vapor concentrations are irritating to eyes and respiratory tract.

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.

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: Yes

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

15. REGULATORY INFORMATION

TSCA STATUS: This fluoropolymer is notified as PMN No.P00-0815 under the TSCA Inventory Regulation .

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
Cyclohexanone	=5000 lb (2270kg) final RQ
Naphthalene	=100 lb (45.4kg) final RQ
Xylene	=100 lb (45.4kg) final RQ
Ethylbenzene	=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): Xylene, Naphthalene, Ethylbenzene

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
- **MAK:** maximum workplace concentration
- **ACGIH:** American Conference of Governmental Industrial Hygienists
- **S.C.C.:** Seta Closed Cup (RAPID EQUILIBRIUM METHOD)

NFPA CODES

Flammability	Hazard	Instability
2	1	1

Revision Summary: updated according to 29CFR 1910.1200(g), section 2,9(2015.9), section 3(2016.1)

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.
