

SAFETY DATA SHEET

1. Identification

GHS product identifier **LUMIFLON LF200**

SDS number AGC-0324

Version No. 01

17-December-2020 Issue date

CAS# Mixture

Raw material for industry Recommended use

Recommended Restrictions Not available.

Manufacturer

Company name AGC Inc. Chemicals Company Coating Business Group 1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan **Address**

+81-3-3218-5040 Phone number +81-3-3218-7843 Fax

Emergency telephone

number

Verisk 3E (Access Code 335170)

Europe: +0-800-680-0425

Asia Pacific: +1-760-476-3960,+66-21056177, +81-368908677

Middle East & Africa: +1-760-476-3959 US, Canada, Mexico: +1-866-519-4752 Other countries: +1-760-476-3971

2. Hazards identification

GHS classification

Health hazards

Physical hazards Flammable liquids Category 3

> Pyrophoric liquids Not classified Acute toxicity, inhalation Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2A

> Sensitization, skin Not classified Carcinogenicity Category 2 Reproductive toxicity Category 1B

Specific target organ toxicity following single

exposure

Category 1 (central nervous system, kidney,

liver, respiratory organ)

Specific target organ toxicity following single exposure

Category 3 respiratory tract irritation

Specific target organ toxicity following single

exposure

Category 3 narcotic effects

Specific target organ toxicity following Category 1 (nervous system, respiratory repeated exposure

organ)

Aspiration hazard Hazardous to the aquatic environment, acute

Not classified Category 2

hazard

Category 2

Hazardous to the aquatic environment,

Hazardous to the ozone layer

long-term hazard

Classification not possible

GHS label elements

Environmental hazards

Signal word Danger



Hazard statement

Flammable liquid and vapour. H226

Causes skin irritation. H315

Material name: LUMIFLON LF200 SDS GHS UN

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.
H370	Causes damage to organs (central nervous system, kidney, liver, respiratory organ).
H372	Causes damage to organs (nervous system, respiratory organ) through prolonged or repeated
	exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
ecautionary statement	

Pred

	Р	'n	е	٧	е	n	ti	o	n
--	---	----	---	---	---	---	----	---	---

Obtain special instructions before use. P201 Do not handle until all safety precautions have been read and understood. P202 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P210 Keep container tightly closed. P233 Keep cool. P235 Ground and bond container and receiving equipment. P240 Use explosion-proof electrical/ventilating/lighting equipment. P241 Use non-sparking tools. P242 Take action to prevent static discharges. P243 Do not breathe mist/vapours. P260

Avoid breathing mist/vapours. P261 Wash thoroughly after handling. P264 Do not eat, drink or smoke when using this product. P270 Use only outdoors or in a well-ventilated area. P271

Avoid release to the environment.

P273

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

Response

IF ON SKIN: Wash with plenty of water. P302 + P352

Call a POISON CENTER/doctor/advice/if you feel unwell. P312

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

water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. P304 + P340

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present P305 + P351 + P338

and easy to do. Continue rinsing.

IF exposed or concerned: Call a POISON CENTRE/doctor. P308 + P311 If skin irritation occurs: Get medical advice/attention. P332 + P313 If eye irritation persists: Get medical advice/attention. P337 + P313 Take off contaminated clothing and wash it before reuse. P362 + P364

Collect spillage. P391

Storage

Store in a cool, dry place out of direct sunlight.

Store in a well-ventilated place. Keep container tightly closed. P403 + P233

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

Store locked up. P405

Disposal

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

Other hazards which do not

result in classification

None known.

Supplemental information None.

3. Composition/information on ingredients

Components	CAS#	Percent
Fluorinated resin	Trade secret	60
Xylene	1330-20-7	21
Ethylbenzene	100-41-4	19
light stabilizer	Trade secret	<1

Material name: LUMIFLON LF200 SDS GHS UN

4. First aid measures

First aid procedures

Inhalation If gas/fume/vapour/dust/mist from the material is inhaled, remove the affected person immediately

to fresh air.

If breathing stops, provide artificial respiration. Oxygen or artificial respiration if needed.

Call a physician or poison control centre immediately.

Skin Take off immediately all contaminated clothing.

Wash off immediately with soap and plenty of water. Wipe up with absorbent material (e.g. cloth, fleece). Do not use solvents and thinner for wipe up. Get medical advice/attention if you feel unwell. Wash contaminated clothing before reuse.

Eye Get medical attention immediately.

Immediately flush eyes with plenty of water for at least 15 minutes.

Remove contact lenses, if present and easy to do.

Continue rinsing.

Ingestion Call a physician immediately.

Rinse mouth.

Do not induce vomiting without advice from poison control center.

Do not swallow vomit.

Most important symptoms and effects, both acute and delayed

May cause drowsiness or dizziness.

Notes to physician Provide general supportive measures and treat symptomatically.

Take off all contaminated clothing immediately.

IF exposed or concerned: Get medical advice/attention.

If you feel unwell, seek medical advice (show the label where possible).

Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Foam. Dry chemical powder. Dry sand. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

General advice

In the event of a fire, toxic gases such as hydrogen chloride, hydrogen fluoride, halocarbonyl, and

carbon monoxide may be generated.

Vapours may form explosive mixtures with air.

Vapours may travel considerable distance to a source of ignition and flash back.

During fire, gases hazardous to health may be formed.

Protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes.

Protection of fire-fighters

Move containers from fire area if you can do so without risk.

Fight fire from upwind area.

General fire hazards

Flammable liquid and vapour.

Specific methods

Remove flammable materials from the environment

Use designated extinguishing media.

Cool closed containers exposed to high temperatures with water.

6. Accidental release measures

Personal precautions Keep unnecessary personnel away.

Keep people away from and upwind of spill/leak.

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area).

Wear appropriate protective equipment and clothing during clean-up.

Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing

appropriate protective clothing. Ventilate closed spaces before entering them.

Prepare a suitable fire extinguisher in case of ignition.

Environmental precautions Contact local authorities in case of spillage to drain/aquatic environment.

Do not discharge to rivers. Be careful not to cause environmental impact Collect and dispose of spillage as indicated in section 13 of the SDS.

Methods for containment Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep

combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Stop the flow of material, if this is without

risk. Prevent entry into waterways, sewer, basements or confined areas.

Material name: LUMIFLON LF200

SDS GHS UN

867 Version #: 01 Issue date: 17-December-2020

Methods for cleaning up

Ventilate the contaminated area.

Wear appropriate protective equipment and clothing during clean-up.

This product is miscible in water. Prevent product from entering drains.

Do not allow material to contaminate ground water system.

_arge Spills:

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Use a non-combustible material like vermiculite, sand or earth to soak up the product and place

into a container for later disposal.

Following product recovery, flush area with water.

Small Spills:

Wipe up with absorbent material (e.g. cloth, fleece).

Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Handling

Obtain special instructions before use.

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

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect

material from direct sunlight.

Explosion-proof general and local exhaust ventilation.

Take precautionary measures against static discharges.

All equipment used when handling the product must be grounded.

Use non-sparking tools and explosion-proof equipment.

Do not breathe mist/vapours.

Avoid contact with eyes, skin, and clothing.

Avoid prolonged exposure.

When using, do not eat, drink or smoke.

Pregnant or breastfeeding women must not handle this product.

Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment.

Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Storage

Store locked up.

Keep away from heat, sparks and open flame.

Prevent electrostatic charge build-up by using common bonding and grounding techniques.

Store in a cool, dry place out of direct sunlight.

Store in tightly closed container. Store in a well-ventilated place.

Keep in an area equipped with sprinklers.

Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls / personal protection

Control parameters

US. ACGIH Threshold Limit Values

Components	Туре	Value	
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time	
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*	

Material name: LUMIFLON LF200 SDS GHS UN

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time	
Xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric	Creatinine in	*	
		acids	urine		

^{* -} For sampling details, please see the source document.

Recommended monitoring

procedures

Follow standard monitoring procedures.

Engineering controls Provide eyewash station and safety shower.

In case of indoor work, use auto application equipment or local ventilation equipment to prevent a

worker from directly being exposed

When handling indoors, seal the source, or install a local exhaust system.

in case of working at closed place such as inner of tank, install ventilation equipment to ventilate

up to the bottom of closed place.

The equipment shall be made with corrosion resistant material.

Make sure that workers do not directly touch or expose corrosive substances.

Attach emergency shower and eye washing equipment to work area and clearly display its position . Do not place high temperature or ignition source close to working place with this product.

Earth equipments for transportation, collection and stirring of this product.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection Wear appropriate chemical resistant clothing.

Use of an impervious apron is recommended.

Respiratory protection Wear air supplied respiratory protection.

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn.

Chemical respirator with organic vapour cartridge.

Hand protection Wear appropriate chemical resistant gloves.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Colour Light yellow. Clear.

Form Viscous
Odour Solvent odor
Odour threshold Not available.

pH Not available.
Melting point/freezing point Not available.

 Boiling point
 138 - 144 °C (280.4 - 291.2 °F)

 Flash point
 25.0 °C (77.0 °F) Setaflash

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Flammability limits in air,

lower, % by volume

1 %

Flammability limits in air,

upper, % by volume

7.6 %

Vapour pressure 0.6 - 0.9 kPa (20°C)

Vapour densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) < 0.6 % (Solubility of fluororesin in water)

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 464 - 564 °C (867.2 - 1047.2 °F)

Decomposition temperature Not available.

Viscosity 9.4 cm²/s (Kinematic Viscocity)

Density 1.12 g/cm3

SDS GHS UN

5 / 10

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

Strong acids, strong oxidizing substances, and halogens can cause fires and explosions.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources.

Incompatible materials Strong acids. Strong oxidising agents. Halogens.

Hazardous decomposition

products

Hydrogen fluoride. Hydrogen chloride. carbon monoxide and carbon dioxide.

11. Toxicological information

Toxicological data

Components	Species	Test Results
Ethylbenzene (CAS 100-41-4)		
<u>Acute</u>		

Dermal

LD50 Rabbit 15400 mg/kg

Inhalation

LC50 Rat 4000 ppm, 4 hr

Oral

LD50 Rat 3500 mg/kg

Xylene (CAS 1330-20-7)

<u>Acute</u>

Dermal

LD50 Rabbit > 4350 mg/kg

Inhalation

LC50 Rat 29.08 mg/l, 4 Hours

Oral

LD50 Rat 3500 mg/kg

Routes of exposure Inhalation. Skin contact. Eye contact.

Toxicological information Occupational exposure to the substance or mixture may cause adverse effects.

Acute toxicity

Skin corrosion/irritation Causes skin irritation. (Xylene)

Serious eye damage/eye

irritation

Mutagenicity

Causes serious eyes irritation(Xylene)(Ethylbenzene)

Irritation Corrosion - Eye

Xylene Category2
Ethylbenzene Category2A

Respiratory sensitiser Not available.

Skin sensitisation Not available.

Skin Sensitisation

LUMIFLON LF200 OECD TG429
Result: Negative

Chilean Spanish went out in Job 18-0024189, French and German were reviewed under

17-0023466 and Hindi under 17-0023485

Germ cell mutagenicity: Ames test

LUMIFLON LF200 OECD471
Result: Negative
Ethylbenzene Result: Negative
Xylene Result: Negative

Germ cell mutagenicity: Chromosome abberation

Ethylbenzene Result: Negative Xylene Result: Negative Germ Cell Mutagenicity: In Vitro Mammalian Cell Gene Mutation Tests

Ethylbenzene Result: There are both negative and positive reports. Xylene Result: There are both negative and positive reports.

Germ Cell Mutagenicity: Micronucleus

Ethylbenzene Result: Negative

Material name: LUMIFLON LF200 SDS GHS UN

Germ Cell Mutagenicity: Micronucleus

Xylene Result: Negative

Carcinogenicity

Ethylbenzene Category2

ACGIH Carcinogens

Ethylbenzene (CAS 100-41-4) A3 Confirmed animal carcinogen with unknown relevance to

humans.

Xylene (CAS 1330-20-7) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

2B Possibly carcinogenic to humans. Ethylbenzene (CAS 100-41-4)

Xylene (CAS 1330-20-7) 3 Not classifiable as to carcinogenicity to humans.

Components in this product have been shown to cause birth defects and reproductive disorders in Reproductive toxicity

laboratory animals. May damage fertility or the unborn child.

Reproductivity

Ethylbenzene Category1B Xylene Category1B

Specific target organ toxicity -

May cause respiratory irritation. May cause drowsiness or dizziness.

single exposure

Xylene Cat.1(Central nervous system, Respiratory, Liver, Kidney), Cat.3(

Narcrotic

Ethylbenzene Cat.3 (Respiratory irritation, Narcotic effect)

Specific target organ toxicity repeated exposure

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

Xylene Cat.1 (Nervous system, Respiratory organs)

Ethylbenzene Category2(Hearing organs)

Aspiration hazard Not applicable.

Xylene Category1

Chronic effects Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated

exposure. Prolonged exposure may cause chronic effects.

Components in this product have been shown to cause birth defects and reproductive disorders in **Teratogenicity**

laboratory animals.

Symptoms May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioural

changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May

cause redness and pain. Oedema. Jaundice.

12. Ecological information

Product		Species	Test Results
LUMIFLON LF200			
Aquatic			
Crustacea	LC50	Brown shrimp (Penaeus aztecus)	0.4 mg/l, 96 Hours (ethylbenzene)
Fish	LC50	Rainbow trout	3.3 mg/l, 96 Hours (xylene)
Components		Species	Test Results
Ethylbenzene (CAS 100-41	-4)		
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Atlantic silverside (Menidia menidia)	4.4 - 5.7 mg/l, 96 hours
light stabilizer			
Aquatic			
Acute			
Algae	EC50	Algae	1.68 mg/l, 72 h
Crustacea	EC50	Daphnia magna	20 mg/l, 24 h
Fish	LC50	Bluegill (Lepomis macrochirus)	0.97 mg/l, 96 h
		Fish	0.9 mg/l, 96 h
		Oncorhynchus mykiss	7.9 mg/l, 96 h
Chronic			
Crustacea		Daphnia magna	1 mg/l, 21 days

Material name: LUMIFLON LF200

SDS GHS UN

Components Species Test Results

Xylene (CAS 1330-20-7)

Aquatic

Acute

Fish LC50 Rainbow trout, donaldson trout 3.3 mg/l, 96 hours

(Oncorhynchus mykiss)

Ecotoxicity Toxic to aquatic life.

In case of leakage, disposal etc., there is a risk of influencing the environment, so handle with care. Especially when products and washing water. Take measures not to flow directly to the

ground, river or drainage.

Environmental effects Toxic to aquatic life with long lasting effects. An environmental hazard cannot be excluded in the

event of unprofessional handling or disposal.

Persistence and degradability

Bioaccumulation

Easily biodegraded. (Xylene)

Bioaccumulative potential

Octanol/water partition coefficient log Kow

Ethylbenzene 3.15

Aquatic toxicityToxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Mobility Not available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methodsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow

this material to drain into sewers/water supplies.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Waste generated by wastewater treatment, incineration, etc. shall be processed or consigned according to Waste Management and Public Cleansing Act. and the related laws. Do not flush wastewater cleaned in containers, equipment, etc. to the ground or drain.

When incinerating, harmful gases may be generated, so incinerate in an equipment that can handle exhaust gas.

Since waste generates hydrogen chloride and hydrogen fluoride when incinerated, it is incinerated in an incinerator equipped with neutralization facility and, the incinerated residue is land filled in legally right place. Do not incinerate in the case of exceeding fluorine emission standards.

Waste from residues / unused

products

Dispose of in accordance with local regulations.

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). The remaining products (residual waste) should be discarded according to the law concerning waste disposal and cleaning and the

prefectural / municipal regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADR

UN number 1866

UN proper shipping name Transport hazard class(es) RESIN SOLUTION, flammable

Class 3
Subsidiary risk Label(s) 3
Hazard No. (ADR) 30
Tunnel restriction code D/E

Packing group III
Environmental hazards No.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

UN number 1866

UN proper shipping name RESIN SOLUTION, flammable

Transport hazard class(es)

3 **Class** Subsidiary risk 3 Label(s) **Packing group** Ш No. **Environmental hazards**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number 1866

Resin solution flammable **UN proper shipping name**

Transport hazard class(es)

Class 3 Subsidiary risk **Packing group** Ш **Environmental hazards** No. **ERG Code** 3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

Allowed with restrictions.

aircraft

Cargo aircraft only Allowed with restrictions.

IMDG

1866 **UN** number

UN proper shipping name RESIN SOLUTION flammable, MARINE POLLUTANT

Transport hazard class(es)

3 **Class** Subsidiary risk Packing group Ш **Environmental hazards**

Yes Marine pollutant F-E, S-E **EmS**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Not established.

IMO instruments

ADR; IATA; IMDG; RID



Marine pollutant



General information IMDG Regulated Marine Pollutant.

> In case of falling under the Fire Service Law, Occupational Safety and Health Law, Poisonous and Deleterious Substances Control Law, follow the transportation method prescribed by each applicable law.

To comply with the provisions of the ship safety law. Follow the aviation laws.

When transporting, keep the container at 40 ° C or below, taking care not to fall over, fall, or damage.

Material name: LUMIFLON LF200 SDS GHS UN

15. Regulatory information

Regulatory information

Ensure this materials in compliance with federal requirements and ensure conformity to local

regulation.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Disclaimer

This product is an industrial product, it is not the thing which developed / manufactured assuming the medical use.

AGC Inc. Chemicals Company Coating Business Group

SDS is a document for business operators. Not all materials and literature have been investigated, so there may be information leaks. In addition, the content will change due to the announcement of new knowledge and correction of the existing theory. When used for important decisions, it is recommended to examine the sources carefully and to confirm by examination. No guarantee is made for the data or evaluation described. In addition, the items described are intended for normal handling. Therefore, when handling specially, be sure to implement safety measures suitable for new applications and usages before handling. Attach this SDS when transferring this product.

Material name: LUMIFLON LF200 SDS GHS UN