SAFETY DATA SHEET

1. Identification

GHS product identifier	**LUMIFLON LF9721**
SDS number	R-1974
Version No.	02
Issue date	18-December-2020
Revision date	11-February-2021
Supersedes date	18-December-2020
CAS #	Mixture
Recommended use	Raw material for industry
Recommended Restrictions	Not available.

Manufacturer

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2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 3
	Pyrophoric liquids	Not classified
Health hazards	Acute toxicity, oral	Not classified
	Serious eye damage/eye irritation	Category 2B
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 3
	Hazardous to the ozone layer	Classification not possible

GHS label elements

Signal word

Warning

Hazard statement

H226	Flammable liquid and vapour.
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P264	Wash hands thoroughly after handling.
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

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340	IF INHALED: Remove person to fresh air and keep 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.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

P235	Keep cool.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

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

Other hazards which do not result in classification None known.

Supplemental information None.

3. Composition/information on ingredients

Components	CAS #	Percent
Fluoro resin	Trade Secret	70
Ethyl 3-ethoxypropionate	763-69-9	<30
Additive	Trade Secret	<0.25

4. First aid measures

First aid procedures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If breathing stops, provide artificial respiration.
Call a physician or poison control centre immediately.

Skin Take off immediately all contaminated clothing.
Rinse skin with water/shower.
Get medical attention if irritation develops and persists.
Wipe up with absorbent material (e.g. cloth, fleece).
Do not use solvents and thinner for wipe up.

Eye Immediately flush eyes with plenty of water for at least 15 minutes.
Remove contact lenses, if present and easy to do.
Continue rinsing.
Get medical attention immediately.

Ingestion If swallowed, seek medical advice immediately and show this container or label.
Rinse mouth.
Do not induce vomiting without advice from poison control center.
If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Do not swallow vomit.

Most important symptoms and effects, both acute and delayed Direct contact with eyes may cause temporary irritation. May cause respiratory irritation.

Notes to physician Provide general supportive measures and treat symptomatically.

General advice Take off all contaminated clothing immediately.
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.
Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Foam. Dry chemical powder. Dry sand. Carbon dioxide (CO2).

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

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.
In the event of a fire, toxic gases such as hydrogen chloride, hydrogen fluoride, halocarbonyl, and carbon monoxide may be generated.

Protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Protection of fire-fighters	In case of fire and/or explosion do not breathe fumes. 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	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge to rivers. Be careful not to cause environmental impact
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.
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. Large 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	All equipment used when handling the product must be grounded. Use explosion-proof equipment. Use non-sparking tools and explosion-proof equipment. Explosion-proof general and local exhaust ventilation. Use only in well-ventilated areas. Use non-sparking tools. Work in an enclosed area with adequate local exhaust and appropriate protective equipment. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Take precautionary measures against static discharges. Do not get in eyes, on skin, on clothing. Avoid breathing mist/vapours. Avoid release to the environment. Observe good industrial hygiene practices. Use personal protection recommended in Section 8 of the SDS. Prohibit the use of fire, sparks, and hot objects in the vicinity Do not eat, drink and smoke when handling. Seal the container each time. Wear anti static work clothes and shoes while working. Soak used rags in water until they are discarded

Storage	Store locked up. Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). When storing outdoors as a pail, attach a roof or cover.

8. Exposure controls / personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
Engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Do not place high temperature or ignition source close to working place with this product. In case of indoor work, use auto application equipment or local ventilation equipment to prevent a worker from directly being exposed in case of working at closed place such as inner of tank, install ventilation equipment to ventilate up to the bottom of closed place. Use explosion-proof handling equipment Earth equipments for transportation, collection and stirring of this product. The equipment shall be made with corrosion resistant material. Make sure that workers do not directly touch or expose corrosive substances.
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	Chemical respirator with organic vapour cartridge. 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.
Hand protection	Wear appropriate chemical resistant gloves.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Colour	pale yellow colorless
Form	Not available.
Odour	Not available.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	-50 °C (-58 °F) (Ethyl 3-ethoxypropionate)
Boiling point	165 °C (329 °F) (Ethyl 3-ethoxypropionate)
Flash point	58.0 °C (136.4 °F) (Ethyl 3-ethoxypropionate)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Flammability limits in air, lower, % by volume	Not available.
Flammability limits in air, upper, % by volume	Not available.
Vapour pressure	93 Pa (Ethyl 3-ethoxypropionate)
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	1.6 % (Ethyl 3-ethoxypropionate)

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	377 °C (710.6 °F) (Ethyl 3-ethoxypropionate)
Decomposition temperature	Not available.
Viscosity	Not available.
Density	1.20 g/cm3
Other data	
Explosive limit - lower (%)	> 1.05 % v/v 88°C (Ethyl 3-ethoxypropionate)

10. Stability and reactivity

Reactivity	The 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	May ignite on contact with high surface temperature, sparks or open flame. May ignite or explode on contact with chlorates and nitrates.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents. Nitrates. Chlorates
Hazardous decomposition products	Hydrogen chloride. Hydrogen fluoride. carbon monoxide and carbon dioxide.

11. Toxicological information

Toxicological data

Components	**Species**	**Test Results**
Ethyl 3-ethoxypropionate (CAS 763-69-9)		
Acute		
Dermal		
LD50	Rabbit	> 9500 mg/kg
Oral		
LD50	Rat	5000 mg/kg

Acute toxicity	In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Causes eye irritation(Ethyl 3-ethoxypropionate)
Respiratory sensitiser	Not available.
Skin sensitisation	Skin sensitization: 0.1% or more and less than 1% of substance of skin sensibility 1B is included.
Mutagenicity	Not available.
Carcinogenicity	None of the Japan Society for Occupational Health, ACGIH, NTP, IARC is mentioned
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Ethyl 3-ethoxypropionate	Result: narcotic effect
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.
Symptoms	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation.

12. Ecological information

Ecotoxicity	Harmful to aquatic life with long lasting effects. 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. (Additive) Very toxic to aquatic life with long lasting effects.
Environmental effects	Harmful to aquatic life with long lasting effects.
Persistence and degradability	Not available.

Bioaccumulation	Not available.
Aquatic toxicity	Harmful 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 methods	Collect 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. 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	RESIN SOLUTION, flammable
Transport hazard class(es)	
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)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	III
Environmental hazards	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	1866
UN proper shipping name	Resin solution flammable
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.

Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	1866
UN proper shipping name	RESIN SOLUTION flammable
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to IMO instruments	Not established.

ADR; IATA; IMDG; RID

General information

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.

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

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.

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