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**SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

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<b>Trade Name</b>	LINQCOAT™ PC-3112
<b>Applications:</b>	Fluorinated conformal coating for electronic components
<b>Advised Against</b>	No further relevant information available
<b>Supplier Name</b>	Caplinq Europe BV

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**SECTION 2. HAZARDS IDENTIFICATION**

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**PROPOSED CLASSIFICATION:** Irritant

**HAZARD PICTOGRAMS:**



GHS07

**HAZARD STATEMENTS**

H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation  
H413 May cause long lasting harmful effects to aquatic life

**PRECAUTIONARY STATEMENTS**

P202 Do not operate until you have read and understood all safety precautions.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / eye protection / face protection.  
P302+P352 If on skin: Wash with plenty of 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 center or doctor if you feel unwell.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container in an approved waste disposal plant

**POTENTIAL HEALTH EFFECTS**

Toxicity: Not Applicable

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**SECTION 3. INGREDIENT COMPOSITION**

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No.	Components	CAS Reg. No.	Proportion (%)
1	9-Fluoroisobutyl methyl ether	163702-08-7	100%

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**SECTION 4. FIRST-AID MEASURES**

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**GENERAL DESCRIPTION**

- Immediately remove any clothing soiled by the product. In case of an accident or if you feel unwell, seek medical advice immediately. Show this Safety Data Sheet to the medical personnel. Move the affected person from the contaminated area.

**EYE CONTACT:**

- Immediately flush eyes thoroughly with water. Remove contact lenses, if present and easy to do so. Continue rinsing. Get medical advice/attention if discomfort continues. There may be irritation and redness. The eyes may water profusely

**SKIN CONTACT:**

- Immediately wash with water and soap and rinse thoroughly. Get medical advice/attention. There may be irritation and redness at the site of contact

**INHALATION:**

- No specific recommendations. If throat irritation or coughing persists, proceed as follows. Move affected person to fresh air and keep at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical advice/ attention if discomfort continues. If not breathing give artificial respiration. In case of unconsciousness place patient on side for transportation. There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**INGESTION:**

- No specific recommendation. If throat irritation or coughing persists proceed as follows. Rinse mouth out with water. Get medical advice/attention if any discomfort continues. There may be soreness and redness of the mouth and throat.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

- The most important known symptoms and effects are described in the labeling (see section 2)

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

- Treat symptomatically

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**SECTION 5. FIRE FIGHTING MEASURES**

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**EXTINGUISHING MEDIA**

**Suitable extinguishing agents** The product is nonflammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use firefighting measures that suit the environment.

**Special hazards arising from the substance or mixture**

Fire hazard Thermal decomposition generates: Carbon oxides, hydrogen fluoride  
Explosion hazard Risk of explosion if heated under confinement due to excessive pressure buildup.  
Use water spray or fog for cooling exposed containers

**Special protective equipment and precautions for firefighters**

**Firefighting instructions** - Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignored use water spray to disperse vapors and protect personnel stopping the leak.

**Protective equipment** - Wear gas tight chemically protective clothing in combination with self-contained breathing apparatus (SCBA) and appropriate clothing including helmets, protective boots, and gloves will provide a basic level of protection of chemical incidents. For further information refer to section 8: exposure controls/personal protection.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**LEAK/SPILL****General Measures**

Keep away from sparks, flames, and extreme heat. Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, fumes, vapor, or spray. If outside do not approach from downwind. Mark the contaminated area with signs and prevent access to unauthorized personnel. Turn leaking containers leak-side up to prevent the escape of liquid

**For non-emergency personnel**

Emergency procedures Prevent further leakage or spilling if safe to do so.

**For Emergency Responders**

Protective Equipment Do not attempt to act without suitable equipment. For further information refer to section 8 "Exposure controls/personal protection"

**Emergency Procedures****Environmental Precautions**

Do not allow to enter sewers/surface or ground water. Notify authorities if product enters sewers or public waters. Avoid release into the environment

**Methods and material for containment and cleaning up**

For containment Stop leak if safe to do so. Dike up recovery or absorb with appropriate material.  
Methods for cleaning up Collect the spillage in the container. Clean up from the edge of the spill inward. Cover with bentonite, vermiculite, or commercially available non-polar absorbent material.  
After fully absorbed mix until dry. Collect as much spillage as possible.  
Other information Dispose contaminated material as waste according to section 13. Ensure adequate ventilation

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**SECTION 7. HANDLING AND STORAGE**

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**HANDLING**

- Do not breathe thermal decomposition products. For industrial use only. Not for consumer sale or use. Store work clothes separately from other clothing, food and tobacco products.
- Do not eat, drink, or smoke when using this product. Wash thoroughly after handling.
- Avoid release to the environment.
- Avoid contact with oxidizing agents (e.g. chlorine, chromic acid, etc).
- No smoking. Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of hazardous decomposition products.
- Keep away from sparks, flames, and extreme heat.

**STORAGE**

- Store in a cool (air-condition room temperature) & dry place away from excessive heat, sunlight, and humidity. Ensure that the storage and usage area is strictly designated as a non-smoking zone.
- Store away from acids, strong bases, and oxidizing agents. Avoid exposure to the sun.
- Keep receptacle tightly sealed

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**SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

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**EXPOSURE LIMITS:**

No.	Components	Standards*	Reference
1	9-Fluoroisobutyl methyl ether	163702-08-7	750 ppm

Where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust sufficient to maintain levels of thermal decomposition products below their exposure guidelines.

Ensure good ventilation of the workstation to ensure

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use general dilution and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/ or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Provide ventilation adequate to maintain vapor concentration below lower explosive concentration.

Keep away from foodstuffs, beverages, tobacco, and feed stuffs.

Immediately remove all soiled and contaminated clothing.

Avoid contact with eyes and skin.

See Section 7 for information about the design of technical facilities.

**VENTILATION:**

Use general or local exhaust ventilation to meet exposure limit requirements.

**PERSONAL PROTECTION: m**

- **Hand Protection:** Protective gloves 29 CFR 1910.138 Hand Protection. Gloves made from the following material(s) are recommended: Neoprene
- **Skin Protection:** If this product is used in a manner that presents a higher potential for exposure (e.g. spraying, high splash potential, etc) then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following clothing material(s) are recommended: Apron – Neoprene.
- **Eye Protection:** Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and face protection

- **Hygiene Measures:** Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking, or using the toilet. Do not eat, drink, or smoke when using this product.
- **Respiratory Protection:** For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use a positive pressure-supplied air respirator. Provide adequate ventilation. Large spills: If ventilation is inadequate, suitable respiratory protection must be worn. In case of inadequate ventilation wear respiratory protection. In case of intensive or longer exposure use a respiratory device that is independent of circulating air.
- **Skin and Body Protection:** Wear suitable protective clothing
- **Other information:** Safety Shoes 29 CFR 1910.136: Foot Protection

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	Liquid
Odor	Slight ether
Ph:	Not Applicable
Color	Colorless
Melting Point / Freezing Point	-135 °C (211 °F)
Initial Boiling Point/Boiling Ranges:	61 °C (141.8 °F)
Minimum operating temperature	-105 °C (-157 °F)
Maximum operating temperature	50 °C (122 °F)
Flash Point:	No Flash Point
Auto-ignition temperature	405 °C
Vapor pressure	109 mmHg (@ 25 °C)
Density	1.51 g/cm <sup>3</sup>
Thermal Conductivity	0.0644 W/m/k
Dielectric Strength	> 28.1 kV (2.5mm)
Dielectric Constant	8.98 (1 Mhz)
Surface Tension	13.72 mN/m
Viscosity	0.6 mPa
% Volatile	98%
Solubility in / miscibility with water	<12

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## SECTION 10. STABILITY & REACTIVITY

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**Chemical Stability:** Stable under ordinary conditions of use and storage. Material is considered non-reactive under normal use.

**Conditions To Avoid:** Extremely high temperatures, keep away from heat, sparks, flame

**Materials to Avoid:** Strong acids, strong bases, strong oxidizing agents

**Decompositions Products:** None.

**Hazardous Decomposition:** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Carbon monoxide, carbon dioxide, hydrogen fluoride, toxic vapor, gas, particulate

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## SECTION 11. TOXICOLOGICAL INFORMATION

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**Toxicity Data:** Acute dermal toxicity, LD50 estimated to be > 5000 mg/kg

Acute inhalation toxicity, no lethal dose, LC50 > 20477.8 mg/m<sup>3</sup>

Acute imported toxicity, LD50 > 5000 mg/kg

**Carcinogenicity:** Carcinogenic categories  
IARC (International Agency for Research on Cancer)  
Substance is not listed  
NTP (National Toxicology Program)  
Substance is not listed  
OSHA-CA (occupational safety and Health Administration)  
Substance is not listed

**Reproductive Effect:** No information found

**Chronic Effects:** No information found

**Target Organs:** No information found

**Skin corrosion/irritation:** No significant irritation to rabbit skin

**Serious eye damage/irritation:** No significant irritation to rabbit eyes

**Respiratory or skin sensitization:** No information found

**Germ Cell Mutagenicity:** Not mutagenic

**Aspiration Hazard:** Not classified

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## SECTION 12. ECOLOGICAL INFORMATION

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**Mobility:** No Information found

**Bioaccumulation:** No information found

**Biodegradability:** No information found

**Aquatic Toxicity:** No information found

**Environmental Toxicity:** No information found

**Ecotoxicity:** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

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## SECTION 13. DISPOSAL CONSIDERATIONS

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Disposal of waste needs to be carried out at the city, state, or federally permitted disposal facility. Handle in accordance with applicable regulations and/or local authorities.

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## SECTION 14. TRANSPORT INFORMATION

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The product is not covered by international regulations on the transport of dangerous goods (IDMG, IATA, DOT). DO NOT MIX AND TRANSPORT WITH STRONG ACIDS, STRONG BASES, AND FOOD. During transportation ensure that the container does not leak, collapse, fall, be damaged, be inverted or shaken violently. Avoid exposure to the sunlight, rain, and high temperatures during transportation. Stay away from fire and high temperature areas during stopovers. Transport vehicles should be equipped with corresponding types and quantities of fire-fighting equipment and leakage emergency treatment equipment.

**Land transport ADR/RID (Cross-border)**

ADR, RID Class: No information available

**Maritime transport IMDG**

IMDG Class: No information available

**Air transport ICAO-TI and IATA-DGR**

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized safety officer. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

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**SECTION 15. REGULATORY INFORMATION**

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## US Federal Regulations

TSCA (Toxic Substances Control Act) Listed on the United States TSCA inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR 372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372

## International Regulations

CANADA Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations No additional information available

## National Regulations

Listed on AICS (Australian Inventory of Chemical Substances)

Listed on the IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Korean ECL (Existing Chemicals List)

Listed on the NZIoC (New Zealand Inventory of Chemicals)

Listed on the PICCS (Philippines Inventory of Chemicals and Chemical Substances)

## US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Chemicals known to cause cancer

Substance is not listed

Chemicals known to cause reproductive toxicity for females

Substance is not listed

Chemicals known to cause reproductive toxicity for males

Substance is not listed

Chemicals known to cause developmental toxicity

Substance is not listed

Massachusetts Right-To-Know List

Substance is not listed

Minnesota Right-To-Know List

Substance is not listed

New Jersey Right-To-Know List:

Substance is not listed

New Jersey Special Hazardous Substance List

Substance is not listed

Pennsylvania Right-To-Know List

Substance is not listed

Pennsylvania Special Hazardous Substance List

Substance is not listed

Rhode Island Right to Know list

Substance is not listed

Cancerogenity Categories EPA (Environmental Protection Agency)

Substance is not listed

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed

NIOSH-ca (National Institute for Occupational Safety and Health)

Substance is not listed

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**SECTION 16. OTHER INFORMATION**

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The information in this safety data sheet was obtained from reputable sources and to the best of our knowledge is accurate and current at the mentioned date. Neither CAPLINQ Corporation, nor CAPLINQ Europe BV accept any liability arising out of the use of the information provided here or the use, application or processing of the product described herein.

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgments of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

NFPA Health Hazard prompt medical attention was given	3 – Short exposure could cause temporary or residual injury even though
NFPA Fire Hazard temperature and pressure.	1 – Materials that are normally stable but become explosive at elevated
NFPA Reactivity reactive with water	0 – Normally stable even under fire exposure conditions and are not

The NFPA health code of 3 is due to emergency situations where the material may decompose and release Hydrogen Fluoride and Perfluoroisobutylene (PFIB). During normal use please reference section 2 and section 11 of the SDS for additional health hazard information

HMIS III Rating Health on contact with eyes, skin, mucous membranes or upper respiratory tract.	1 slight hazard – This material causes irritation nor minor, reversible injury
Flammability	1 slight hazard – material must be preheated before ignition will occur.
Physical	0 Minimal Hazard – Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives

**COMMON ABBREVIATIONS AND ACRONYMS:**

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
UN: United Nations (also UNO: United Nations Organization)  
NOEC: No Observed Effect Concentration  
OECD: Organisation for Economic Co-operation and Development  
ASTM: American Society for Testing and Materials  
WAF: Water Accommodated Fraction  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent



LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative