

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name LINQBOND™ LE-4422
Applications: Epoxy resin potting adhesive
Advised Against No further relevant information available
Supplier Name Caplinq Europe BV

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SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE/MIXTURE

Hazard Class

Skin Sensitization
 Skin corrosion or irritation
 Hazardous to the aquatic environment, long-term hazard
 Serious eye damage/eye irritation
 Germ cell mutagenicity
 Carcinogenicity
 Reproductive toxicity

Hazard Category

Category 1, 1A, 1B
 Category 2
 Category 2
 Category 2A
 Category 2
 Category 2
 Category 2

LABEL ELEMENTS

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard Pictogram



Signal Word

Warning

Hazard Statements

H315 Causes skin irritation
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation
 H341 Suspected of causing genetic defects
 H351 Suspected of causing cancer
 H361f Suspected of damaging fertility
 H411 Toxic to aquatic life with long-lasting effects.

Prevention Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 Wash skin thoroughly after handling
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection
 P254+P265 Wash hands thoroughly after handling. Do not touch eyes.

Response Precautionary Statements

P321	See specific treatment on the label.
P338	Remove contact lenses, if present and easy to do. Continue rinsing.
P352	Wash with plenty of soap and water.
P391	Collect spillage
P301+P316	If swallowed, get emergency medical help immediately.
P302+P352	If on skin, wash with plenty of water.
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.
P362+P364	Take off immediately all contaminated clothing and wash it before reuse
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing

Storage Precautionary Statements

P405	Store locked up.
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Disposal Precautionary Statements

P501	Dispose of contents or container to an approved waste disposal.
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OTHER HAZARDS

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3. INGREDIENT COMPOSITION

No.	Components	CAS Reg. No.	Proportion (%)
1	Epoxy resin	25068-38-6	30–60
2	Latent curing agent	461-58-5	1–10
3	Colorant	1333-86-4	0.1–9.9
4	Silica filler	7631-86-9	20–50
5	Epoxy diluent	68609-97-2	0.1–9.9
6	Additive	106-92-3	0.1–9.9

SECTION 4. FIRST AID MEASURES

DESCRIPTION OF FIRST-AID MEASURES

General advice

First aiders should wear appropriate personal protective equipment (see Section 8). Show this Safety Data Sheet to the attending medical personnel.

If inhaled

After inhalation, move the person to fresh air. Keep them at rest in a position comfortable for breathing. If symptoms persist, consult a doctor.

In case of skin contact

In case of skin contact, do not pull solidified compound off the skin. Immediately wash affected area with soap and water. If skin irritation or symptoms persist, seek medical advice.

After eye contact, remove contact lenses if present and easy to do. Rinse eyes immediately with plenty of water for several minutes, keeping eyelids open. If irritation persists, consult an ophthalmologist.

If swallowed

If swallowed, rinse mouth thoroughly with water. Seek immediate medical help and follow the doctor's advice on whether to induce vomiting. Do not administer anything orally if the patient is on the verge of losing consciousness, already unconscious, or experiencing convulsions.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- No data available

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable Carbon dioxide, dry chemical powder, foam extinguisher and fire-fighting dry sand
Unsuitable No specific information available.

SPECIAL HAZARDS ARISING FROM SUBSTANCE OR MIXTURE

Carbon oxides
Combustible
Vapors are heavier than air and may spread along floor
Forms explosive mixtures with air at elevated temperatures
Development of hazardous combustion gases or vapours possible in the event of fire

ADVICE FOR FIREFIGHTERS

Precautions during firefighting Evacuate personnel and isolate the fire area. Keep unauthorized individuals away from the fire area. Move the product to a safe location if possible and ensure the safety of personnel. When extinguishing the fire, maintain a safe position or distance. Water spray may not be effective in putting out the fire. After the fire is fully extinguished and there is no risk of re-ignition, use water spray to cool the fire area and the container holding the product.

Protection during firefighting Firefighting and rescue teams must wear appropriate protective equipment including gloves, glasses, and shoes. Stay in the danger area only with self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Do not attempt to take any action without wearing the proper protective clothing and equipment. Follow emergency procedures and consult an expert. Only trained personnel should handle the cleanup of the spillage. For personal protection information, refer to Section 8.

ENVIRONMENTAL PRECAUTIONS

Do not let products enter drains, drinking water sources, surface water, and soil.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

In case of a small spill, contain the material using sand, cloth, or other suitable absorbents. Collect and transfer the waste into a labeled container for proper disposal. If the material can be safely recovered, pump it into a suitable container. Clean any remaining residue using absorbent materials to prevent slip hazards.

For a large spill, contact the fire department, emergency services, or the supplier for assistance. Follow any material restrictions as outlined in Sections 7 and 10. If necessary, perform a final cleaning using steam, solvents, or detergents. Handle the spill with care and dispose of all waste in accordance with local regulations.

REFERENCE TO OTHER SECTIONS

For disposal, see Section 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Advice on safe handling	Ensure sufficient ventilation at the workstation. Avoid contact with skin and eyes. Avoid material leakage. Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures	Contaminated work clothing should not be worn outside workplace premises. Work clothing should be washed before reuse. Wash hands and face after handling the product. For precautions, see Section 2. Apply preventive skin protection

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label.
Storage class	Not applicable

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

CONTROL PARAMETERS

Exposure Limits

No.	Components	Standards*	Reference
1	Epoxy resin	Not Established	OSHA ¹ , ACGIH ²
2	Latent curing agent	Not Established	OSHA, ACGIH
3	Colorant	3.5 mg/m ³	OSHA, ACGIH
4	Silica filler	50 µg/m ³	OSHA, ACGIH
5	Epoxy diluent	Not Established	OSHA, ACGIH
6	Additive	1 ppm (4.67 mg/m ³)	ACGIH

¹Occupational Safety and Health Administration (OSHA) 8-hour total weight average (TWA) permissible exposure limit (PEL)

²American Conference of Governmental Industrial Hygienists (ACGIH) 8-hour total weight average (TWA) threshold limit value (TLV)

EXPOSURE CONTROLS

Eye and face protection	Use appropriate eye protective gear, with standard glasses as the minimum requirement.
Hand protection	Wear refractive gloves while working with the product.
Body protection	Suitable protective clothing

Hygiene measure

Adopt appropriate procedures for industrial hygiene. Particularly before eating, drinking, or smoking, wash after handling.

Respiratory protection

Not required under normal conditions of use. Use proper respiratory protective equipment in case of insufficient ventilation and or when aerosol or mist is formed.

Control of environmental exposure

Do not release the product to the environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Black viscous liquid
Odor	None
pH	Not determined
Melting point	Not determined
Boiling point	Not determined
Flash point	>140 °C
Flammability	No data available
Vapor pressure	No data available
Explosive limit	No data available
Auto-ignition temperature	Not determined
Decomposition temperature	No data available
Solubility	Not soluble in water
Viscosity	35,000–60,000 mPa.s
Specific Gravity at 20°C	1.3-1.4
Partition coefficient (n-octanol/water)	No data available

OTHER INFORMATION

Information with regard to physical hazard classes	No additional information available
Other safety characteristics	No additional information available

SECTION 10. STABILITY & REACTIVITY

Chemical Stability and Reactivity	The product is chemically stable under standard ambient conditions (room temperature).
Materials and Conditions to Avoid	No available data.
Hazardous Polymerization	No available data.
Hazardous Decomposition Products	No available data.

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON HAZARD CLASSES AS DEFINED (EC) No 1272/2008

Acute Toxicity (Oral)	Not classified, based on available data
Acute Toxicity (Dermal)	No significant irritation expected from a single short-term exposure
Acute Toxicity (Inhalation)	No significant effects expected from a single short-term exposure.
Skin corrosion/irritation	Additive and Epoxy Resin have a harmonised classification as H315, although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI
Serious eye damage/irritation	Additive and Epoxy Resin have a harmonised classification as H319,

Respiratory or skin sensitisation

although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI

Germ cell mutagenicity

Additive and Epoxy Resin have a harmonised classification as H315, although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI

Carcinogenicity

Additive has a harmonised classification as H341, although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI

Reproductive Toxicity

Additive has a harmonised classification as H351, although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI

Specific Target Organ Toxicity (Single and Repeated Exposure)

Additive has a harmonised classification as H361f, although limited toxicological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex VI

Aspiration hazard

Not classified, based on available data

Not classified, based on available data

INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties

No available data

Adverse health effects caused by endocrine disrupting properties

No available data

Potential adverse human health effects and symptoms

No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecological Toxicity

Not classified, based on available data.

Hazardous to the aquatic environment, short term (acute)

Not classified, based on available data

Hazardous to the aquatic environment, long-term (chronic)

Epoxy resin has a harmonised classification as H411, although limited ecological data is available specific to this mixture. No effects were observed in standard testing, but classification is applied in accordance with Regulation (EC) No 1272/2008, Annex V

Mobility in soil

Not classified, based on available data

Bioaccumulation

Not classified, based on available data

Persistence and biodegradability

Not classified, based on available data

PBT and vPvB assessment

Not classified, based on available data

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE NATURE

Hazardous waste

WASTE TREATMENT METHODS

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. Do not pour into sewers or surface water, and avoid random disposal. Dispose of all containers or absorbents containing resin as hazardous waste.

WASTE TREATMENT PRECAUTIONS

Warning: Generated waste is hazardous. Do not dump it into sewers, or surface water, or dispose of it improperly. All containers or absorbers containing resin must be treated as hazardous waste.

SECTION 14. TRANSPORT INFORMATION

UN NUMBER OR ID NUMBER

ADR/RID/ADN, IMDG, IATA

UN3082

PROPER SHIPPING NAME

ADR/RID/ADN

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Bisphenol A Epoxy Resin)

IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Bisphenol A Epoxy Resin)

IATA

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Bisphenol A Epoxy Resin)**TRANSPORT HAZARD CLASS**

ADR/RID/ADN, IMDG, IATA



Hazard Class

9 Miscellaneous Dangerous Goods and Articles

Label

9

PACKING GROUP

ADR/RID/ADN, IMDG, IATA

III

ENVIRONMENTAL HAZARDS

Marine pollutant

No

Special marking (ADR/RID/ADN)

Not applicable

Special marking (IATA)

Not applicable

Special precautions for user

Warning: Miscellaneous dangerous substances and
articles.

Hazard identification number (Kemler code)

90

EMS Number

F-A, S-F

Stowage Category

A

Maritime transport in bulk according to IMO instruments Not applicable

Transport/Additional information

ADR/RID/ADN

Limited quantities (LQ)

5 L

Excepted quantities (EQ)

E1

Transport category

3

Tunnel restriction code

(D/E)

UN "Model Regulation"

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (Bisphenol A diglycidyl ether), 9, III**TRANSPORTATION PRECAUTIONS**

- Ensure the container is leak-proof.
- During transport, prevent falling, tipping, collisions, and exposure to direct sunlight.
- Pack and transport in a sealed container.
- Transportation must adhere to applicable national and international regulations.

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.

SECTION 15. REGULATORY INFORMATION

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Regulation (EC) No. 1907/2006 (REACH) – Annex XVII:

This substance/mixture does not contain any substances subject to restrictions under Annex XVII.

Regulation (EC) No. 1907/2006 (REACH) – Candidate List of Substances of Very High Concern (SVHC):

None of the ingredients are listed as SVHCs.

Regulation (EC) No. 1272/2008 (CLP):

Classification, labeling, and packaging of substances and mixtures comply with CLP requirements.

Directive 2012/18/EU (Seveso III Directive) – Annex I:

None of the ingredients are listed under the Directive.

Directive 2011/65/EU (RoHS Directive) – Annex II:

The substance is not listed as a restricted material under the RoHS Directive.

SECTION 16. OTHER INFORMATION

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.

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