

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name	LINQALLOY™ SP-SAC105
Applications:	Solder paste for surface mount technology
Advised Against	No further relevant information available
Supplier Name	Caplinq Europe BV

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SECTION 2. HAZARDS IDENTIFICATION

PROPOSED CLASSIFICATION

Acute Toxicity (Oral)	Category 4
Acute Toxicity (Dermal)	Category 1
Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Irritation	Category 2B
Respiratory/Skin Sensitization	Category 1

HAZARD PICTOGRAMS



SIGNAL WORD

Danger

HAZARD STATEMENTS

- H301** Toxic if swallowed
- H302** Harmful if swallowed
- H315** Causes skin irritation
- H317** May cause an allergic skin reaction
- H319** Causes serious eye irritation
- H335** May cause respiratory irritation

PRECAUTIONARY STATEMENTS

- P301/P315** IF SWALLOWED: Get immediate medical advice/attention
- P302/P352** IF ON SKIN: Wash with soap and water
- P304/P340** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305/P350** IF IN EYES: Gently wash with soap and water
- P333/P313** If skin irritation or a rash occurs: Get medical advice/attention
- P263** Avoid contact during pregnancy or while nursing
- P411** Store in a closed container. Store at temperatures not exceeding 12 °C or 54 °F
- P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

POTENTIAL HEALTH EFFECTS

Eye Contact: May cause mild eye irritation.

Ingestion: May be hazardous to the digestive system, and cause vomiting and loss of appetite.

Inhalation: May cause respiratory tract irritation.

Skin Contact: May cause mild skin inflammation.

SECTION 3. INGREDIENT COMPOSITION

Solder Alloy (88.5±0.5%)

No.	Components	CAS Reg. No.	Proportion (%)
1	Sn	7440-31-5	Balance
2	Ag	7440-22-4	1±0.1
3	Cu	7440-50-8	0.5±0.05

Flux Paste (11.5±0.5%)

No.	Components	CAS Reg. No.	Proportion (%)
4	Polymerized Rosin	8050-09-7	20–53
5	Modified Rosin	1446-61-3	20–53
6	Poly-alkylene glycol mono butyl ether	9038-95-3	35–40
7	Hydrogenated castor oil	8001-78-3	5–10

SECTION 4. FIRST-AID MEASURES

EYE CONTACT

- Immediately flush with plenty of water for at least 15 min.
- Seek medical attention if irritation develops.

SKIN CONTACT

- Immediately flush with plenty of water for at least 15 min.
- Seek medical attention if irritation persists.

INHALATION

- Evacuate the victim to fresh air.
- Administer oxygen if breathing is difficult.
- Get medical attention if symptoms persist.

INGESTION

- Do not administer anything orally if the patient is on the verge of losing consciousness, already unconscious, or experiencing convulsions.
- Do not induce vomiting.
- Get medical attention immediately.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- This is a non-flammable compound.
- Water, alcohol foam, powder and carbon dioxide extinguisher.

PROTECTIVE EQUIPMENT

- Use only approved breathing apparatus, gloves, and firefighting gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

LEAK/SPILL

- In case of leakage, wipe using an appropriate absorbent material (e.g., rags, air-laid paper), then dispose of in a chemical waste container.
- Report as per regulatory requirements.

SECTION 7. HANDLING AND STORAGE

HANDLING

- Read all precautionary warnings before handling.
- Keep the container tightly closed and refrigerated when not in use, to prevent leakages to maintain long shelf life.
- Ensure the availability of suitable protective and ventilation equipment.
- Minimize skin and eye exposure, and prevent inhalation of vapors. Do not stay in contact for an extended period.

STORAGE

- Store in a cool, dry place between 0 °C to 12 °C, away from excessive heat, sunlight, and humidity. Ensure that the storage and usage area is strictly designated as a non-smoking zone.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	CAS Reg. No.	OSHA PEL-TWA (mg/m ³)	ACGIH TLV-TWA (mg/m ³)
Lead	7439-92-1	0.05	0.15
Tin	7440-31-5	2.0	2.0
Silver	7440-22-4	0.01	0.1
Antimony	7440-36-0	0.5	0.5
Copper	7440-22-8	1.0	1.0
Indium	7440-74-6	Not Established	0.1

VENTILATION

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

PERSONAL PROTECTION

- Respiratory Protection: Respiratory protectors must be used if the exposure can not be controlled below the limits.

- Skin Protection: Chemical resistance gloves and protective garments should be worn to avoid possible skin contact.
- Eye Protection: Chemical splash goggles should be worn to prevent eye contact, with access to an eye wash fountain and deluge shower, and avoid using contact lenses in high fumes areas.

PERSONAL HYGIENE

- Wash your hands with soap thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Metallic gray cream
Odor	Mild odor
Melting Point	223 °C (Liquidus temperature)
Specific Gravity	7.2–8.5
Solubility	Not soluble in water

SECTION 10. STABILITY & REACTIVITY

Chemical Stability: Stable under ordinary conditions of use and storage.

Conditions to Avoid: Reaction with oxidizing materials.

Decomposition Products: Decomposition will not occur if the product is stored according to specifications.

Hazardous Polymerization: No hazard at room temperature.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity Data: Hazardous smoke and fumes generated during the soldering process may be harmful if inhaled. Metallic tin and inorganic tin compounds may cause nausea, vomiting, diarrhea, irritation and pneumoconiosis if ingested. Prolonged contact may result in eye and skin irritation and asthma symptoms.

SECTION 12. ECOLOGICAL INFORMATION

Mobility: No Information found

Bioaccumulation: No information found

Biodegradability: No information found

Aquatic Toxicity: No information found

Environmental Toxicity: Do not allow material to be released to the environment without proper governmental permits.

SECTION 13. DISPOSAL CONSIDERATIONS

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.

SECTION 14. TRANSPORT INFORMATION

Land transport ADR/RID (Cross-border)

ADR, RID Class: Not regulated

Maritime transport IMDG

IMDG Class: Not regulated

Air transport ICAO-TI and IATA-DGR

USA [DOT] and Canada [TDG]

DOT/TDG Class:

Not regulated

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

No information available

SECTION 16. OTHER INFORMATION

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COMMON ABBREVIATIONS AND ACRONYMS

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

OSHA: The Occupational Safety and Health Administration

ACGIH: American Conference of Governmental and Industrial Hygienists

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 Labeling 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)

TWA: Time-Weighted Average

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

NE: Not Established