

UV LED Glass Inks

SAFETY INFORMATION SUMMARY | MSDS WORKING DRAFT

Safety information summary / MSDS working draft. Contains confirmed product details and supported safety notes. Finished-product hazard classification is incomplete. This is not a complete SDS and does not replace safety documentation required for supply or transport.

01 Product and supplier

Use: Professional direct printing on exterior surfaces of glass articles.
Use restriction: Not for surfaces in direct contact with food or beverages.
Scope: The uncured UV LED glass inks listed below, as supplied before hardener addition. Hardener is supplied separately and added at 1% before use; it requires separate safety information.
Supplier: Linkonink / Dongguan Lingheng New Materials Co., Ltd., China
Address: Tianbaoli Coatings Factory, No. 5 Wende Road, Xiaokeng Village, Liaobu Town, Dongguan, Guangdong, China
Business contact: Henry Tang | henry@linkonink.com | +86 134 1212 3095
Website: linkonink.com

Manufacturer emergency contact: Henry Tang | +86 134 1212 3095
Availability: Monday-Friday, 09:00-17:00 Beijing time (UTC+8).

02 Product models and appearance

Model	Product name
LH-LED-VARNISH	UV LED Glass Clear Varnish
LH-LED-HOT-STAMPING-PRIMER	UV LED Glass Hot Stamping Primer
LH-LED-RED	UV LED Glass Red Ink
LH-LED-BLACK	UV LED Glass Black Ink
LH-LED-WHITE	UV LED Glass White Ink

Clear varnish: Clear, colourless liquid.
Hot stamping primer: Clear liquid with a creamy yellow colour.
Coloured inks: Flowable liquids; colour depends on the product shade.
Odour: Characteristic ester-like odour.
Water miscibility: Not miscible with water (manufacturer statement).

Appearance is manufacturer-described. Odour is a qualitative description based on the manufacturer's IBOA comparison, not a measured odour threshold or emissions result.

Layout and format references: Hanghua MSDS (public government attachment) | Nazdar SDS | EU SDS format: 2020/878

Known ingredients and hazards

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03 Known composition information

Ingredient / group	Identification and notes
Urethane acrylate	Pure resin
N-Acryloylmorpholine (ACMO)	CAS 5117-12-4
Trimethylolpropane triacrylate (TMPTA)	CAS 15625-89-5
Isobornyl acrylate (IBOA)	CAS 5888-33-5
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (TPO)	CAS 75980-60-8
Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide (819)	CAS 162881-26-7
Polyether-modified polydimethylsiloxane	Flow / levelling additive
Polydimethylsiloxane-based defoamer	Defoamer
Pigments	Present in coloured inks only

The listed base ingredients are shared across variants; pigments are added to coloured inks. Concentrations may differ. No organic solvents are separately added. Proportions are omitted at the manufacturer's request; this table does not replace formal SDS ingredient and concentration disclosures. ACMO is an acrylamide-type reactive monomer.

04 Known ingredient hazards

- ACMO:** Harmful if swallowed (H302); skin sensitisation (H317); serious eye damage (H318); possible organ damage from prolonged/repeated oral exposure (H373). [3]
- TMPTA:** Skin irritation (H315), skin sensitisation (H317), serious eye irritation (H319), **suspected carcinogenicity (H351)**; very toxic to aquatic life with long-lasting effects (H410). [4]
- IBOA:** Skin irritation (H315), skin sensitisation (H317), serious eye irritation (H319), respiratory irritation (H335); very toxic to aquatic life with long-lasting effects (H410). [5]
- TPO:** **May damage fertility; suspected of damaging the unborn child (H360Fd; EU Repr. 1B)**; skin sensitisation (H317); toxic to aquatic life with long-lasting effects (H411). [6-7]
- 819:** Skin sensitisation (H317); may cause long-lasting harmful effects to aquatic life (H413). [8]

These are ingredient hazards, not a finished-product GHS/CLP classification. Assessment also depends on actual raw materials, concentrations and colour-specific formulations.

Safe handling and emergency notes

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05 Handling and equipment protection

Provide ventilation and control ink mist and splashes. Use goggles, protective clothing and chemical-resistant gloves selected from ingredient compatibility data. Use curing-equipment shielding and interlocks; do not look into UV sources or expose skin to curing radiation.

06 First aid

Skin: Remove contaminated clothing and wash thoroughly with soap and water. Do not use solvents on skin. Obtain medical advice for a rash or persistent discomfort.

Eyes: Start rinsing immediately with water, continue rinsing, remove contact lenses if easy and obtain medical advice.

Unwell after inhalation: Move to fresh air, rest and seek medical advice.

Ingestion: Rinse the mouth, do not induce vomiting and contact a doctor or poison centre immediately. Give nothing by mouth to an unconscious person.

07 Storage and workplace hygiene

Recommended storage: 10-25°C. **Shelf life:** 24 months in unopened original packs under recommended conditions. Keep packs closed, protected from light, heat and UV sources to prevent premature curing. No eating, drinking or smoking in the work area. Wash after handling; launder contaminated clothing before reuse.

Manufacturer experience: No abnormal self-heating, container swelling or spontaneous gelation observed under recommended storage conditions before hardener addition.

08 Spill and fire response

Spill: Restrict access by unprotected people. Trained personnel should collect spills with compatible inert absorbent and prevent entry into drains. Protect collected uncured ink and contaminated materials from heat and light, and arrange appropriate waste treatment.

Fire: Evacuate, alert emergency services and avoid smoke. Firefighters require self-contained breathing apparatus. Extinguishing media and decomposition hazards depend on actual ingredient information.

09 Disposal and packaging

Do not put uncured ink, wash waste or contaminated packaging into drains. Use an authorised contractor and applicable local waste procedures. Curing alone does not automatically make waste suitable for general disposal.

Supply packs: 5 kg/pail, 4 pails/carton; 1 kg/can, 10 cans/carton.

10 Transport information

Transport classification: pending assessment. No transport assessment report is available yet.

11 Information basis

Product details are manufacturer-confirmed. Safety notes refer to published ingredient and industry information, not finished-product test results. Numbering is specific to this summary.

[1] EuPIA - Safe handling of UV/EB inks (2024)

[2] RadTech - Safety and handling of UV/EB curing materials

[3] Merck/Sigma-Aldrich - ACOMO; [4] Merck/Sigma-Aldrich - TMPTA

[5] Merck/Sigma-Aldrich - IBOA; [6] INRS - TPO (EU Repr. 1B)

[7] Merck/Sigma-Aldrich - TPO; [8] Merck/Sigma-Aldrich - 819