Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

1 Identification

Product identifier

Product name: S1 Black LED Cure Ink

Other means of identification

Article number: S1

Application of the substance / the mixture: Printing inks

Details of the supplier of the safety data sheet

Inkcups Now, LLC
310 Andover Street
Danvers, MA 01923 - USA
1-978-646-8980

Manufacturer/Supplier:

Inkcups Now, LLC
310 Andover Street
Danvers, MA 01923
USA

Information department: compliance@inkcups.com

Emergency telephone number: Verisk 3E US & Canada: +1 866 519 4752; Access Code: 335740

* 2 Hazard(s) identification

Classification of the substance or mixture

Acute toxicity - oral 4	H302 Harmful if swallowed.
Skin corrosion 1C	H314 Causes severe skin burns and eye damage.
Eye damage 1	H318 Causes serious eye damage.
Sensitization - skin 1	H317 May cause an allergic skin reaction.
Reproductive toxicity 1B	H360 May damage fertility or the unborn child.

Label elements

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester
Tetrahydrofurfuryl Acrylate
2-phenoxyethyl acrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Neopentylglycol(PO)2 Diacrylate
propylidynetrimethanol, propoxylated, esters with acrylic acid
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

Product name: Black LED Cure Ink

Hazard statements
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
9.5 % of the mixture consists of component(s) of unknown toxicity.
Classification according to (d)(1)(ii) of § 1910.1200
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
Hazards not otherwise classified
There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

86273-46-3	2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester Acute toxicity - oral 4, H302; Sensitization - skin 1, H317	≥ 25 - ≤ 50%
48145-04-6	2-phenoxyethyl acrylate Reproductive toxicity 2, H361; Sensitization - skin 1A, H317	≥ 10 - ≤ 25%
2399-48-6	Tetrahydrofurfuryl Acrylate Reproductive toxicity 1B, H360; Skin corrosion 1C, H314; Eye damage 1, H318; Acute toxicity - oral 4, H302; Sensitization - skin 1, H317; Flammable liquids 4, H227	10 - 25%
84170-74-1	Neopentylglycol(PO)2 Diacrylate Sensitization - skin 1, H317	2.5 - 10%
75980-60-8	diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide Reproductive toxicity 1B, H360; Sensitization - skin 1B, H317	≥ 2.5 - ≤ 10%

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

Product name: Black LED Cure Ink

53879-54-2	propylidynetrimethanol, propoxylated, esters with acrylic acid Eye irritation 2A, H319; Sensitization - skin 1, H317	2.5 - 10%
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide Sensitization - skin 1A, H317	2.5 - 10%
1333-86-4	Carbon black Self-heating substances and mixtures 2, H252	≥ 0 - ≤ 10%
71868-10-5	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one Reproductive toxicity 1B, H360; Acute toxicity - oral 4, H302	≥ 0 - ≤ 2.5%
119313-12-1	2-benzyl-2-dimethylamino-4-morpholinobutyrophenone Reproductive toxicity 1B, H360	≥ 0 - ≤ 2.5%
55818-57-0	4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid Sensitization - skin 1, H317	≥ 0 - ≤ 2.5%

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents: Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture No further relevant information available.

Advice for firefighters

Protective equipment: No special measures required.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

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Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Information about protection against explosions and fires: Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: Keep receptacle tightly sealed.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Control parameters
Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

1333-86-4 Carbon black

PEL Long-term value: 3.5 mg/m³

REL Long-term value: 3.5* mg/m³
*0.1 in presence of PAHs;See Pocket Guide Apps.A+C

TLV Long-term value: 3* mg/m³
*inhalable fraction, A3
Additional information: The lists that were valid during the creation were used as basis.

Exposure controls
Appropriate engineering controls No further data; see section 7.
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Protection of hands:

Protective gloves

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

Product name: Black LED Cure Ink

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

* 9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Physical state	Liquid
Color:	Black
Odor:	Characteristic
Odor threshold:	Not determined.
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flammability:	Not applicable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value:	Not determined.
Viscosity:	
Kinematic:	Not determined.
Dynamic:	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not determined.
Vapor pressure:	
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Particle characteristics	Not applicable.

Other information

Appearance:	
Form:	Liquid
Important information on protection of health and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

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Change in condition
Evaporation rate Not determined.

10 Stability and reactivity

Reactivity No further relevant information available.
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

* 11 Toxicological information

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)
Oral LD50 > 1,084 - 1,120 mg/kg

86273-46-3 2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester
Oral LD50 500 mg/kg (ATE)

2399-48-6 Tetrahydrofurfuryl Acrylate
Oral LD50 928 mg/kg (rat)

53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid
Oral LD50 > 2,000 mg/kg (rat)

1333-86-4 Carbon black
Oral LD50 10,000 mg/kg (rat)

71868-10-5 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one
Oral LD50 500 mg/kg (ATE)

Primary irritant effect:
on the skin: Strong caustic effect on skin and mucous membranes.
on the eye: Strong caustic effect.
Sensitization: Sensitization possible through skin contact.
Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Interactive effects No interactive effects between components are known.

Carcinogenic categories
IARC (International Agency for Research on Cancer)
1333-86-4 Carbon black: 2B
119-61-9 benzophenone: 2B
15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate: 2B
108-88-3 Toluene: 3
100-41-4 ethylbenzene: 2B

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

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127-19-5 N,N-dimethylacetamide: 2B

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects

Remark: Harmful to fish

Additional ecological information:

General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number

DOT, IMDG, IATA not regulated

UN proper shipping name

DOT, IMDG, IATA not regulated

Transport hazard class(es)

DOT, ADN, IMDG, IATA

Class not regulated

Packing group

DOT, IMDG, IATA not regulated

Environmental hazards: Not applicable.

Safety Data Sheet

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Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

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Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Special precautions for user	Not applicable.
UN "Model Regulation":	not regulated

* 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

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

86273-46-3 2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester: ACTIVE

48145-04-6 2-phenoxyethyl acrylate: ACTIVE

84170-74-1 Neopentylglycol(PO)2 Diacrylate: ACTIVE

75980-60-8 diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide: ACTIVE

53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid: ACTIVE

162881-26-7 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide: ACTIVE

1333-86-4 Carbon black: ACTIVE

71868-10-5 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one: ACTIVE

119313-12-1 2-benzyl-2-dimethylamino-4-morpholinobutyrophenone: ACTIVE

55818-57-0 4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid: ACTIVE

Hazardous Air Pollutants

67-56-1 methanol

108-88-3 Toluene

100-41-4 ethylbenzene

Proposition 65

Chemicals known to cause cancer:

1333-86-4 Carbon black

119-61-9 benzophenone

15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

100-41-4 ethylbenzene

127-19-5 N,N-dimethylacetamide

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

127-19-5 N,N-dimethylacetamide

Chemicals known to cause developmental toxicity:

67-56-1 methanol

108-88-3 Toluene

127-19-5 N,N-dimethylacetamide

Safety Data Sheet

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Date of issue: 08/08/2025 Version: 4.0 Reviewed on 08/08/2025

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Carcinogenic categories

EPA (Environmental Protection Agency)

110-82-7 cyclohexane: I

108-88-3 Toluene: II

100-41-4 ethylbenzene: D

TLV (Threshold Limit Value)

1333-86-4 Carbon black: A4

108-88-3 Toluene: A4

100-41-4 ethylbenzene: A3

127-19-5 N,N-dimethylacetamide: A4

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

1333-86-4 Carbon black

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS05 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:
2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester
Tetrahydrofurfuryl Acrylate
2-phenoxyethyl acrylate
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide
Neopentylglycol(PO)2 Diacrylate
propylidynetrimethanol, propoxylated, esters with acrylic acid
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide
4,4'-isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid

Hazard statements
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.

Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
IF exposed or concerned: Get medical advice/attention.

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Specific treatment (see on this label).
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases
H227 Combustible liquid.
H252 Self-heating in large quantities; may catch fire.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.
H361 Suspected of damaging fertility or the unborn child.

Date of previous version 12/20/2023
Version number of previous version: 2.0
Date of preparation 08/08/2025
Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
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
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flammable liquids 4: Flammable liquids – Category 4
Self-heating substances and mixtures 2: Self-heating substances and mixtures – Category 2
Acute toxicity - oral 4: Acute toxicity – Category 4
Skin corrosion 1C: Skin corrosion/irritation – Category 1C
Eye damage 1: Serious eye damage/eye irritation – Category 1
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
Sensitization - skin 1: Skin sensitisation – Category 1
Sensitization - skin 1A: Skin sensitisation – Category 1A
Sensitization - skin 1B: Skin sensitisation – Category 1B
Reproductive toxicity 1B: Reproductive toxicity – Category 1B
Reproductive toxicity 2: Reproductive toxicity – Category 2

*** Data compared to the previous version altered.**