



Safety Data Sheet

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

Printing date 03/18/2020

Version: 1.0

Reviewed on 03/18/2020

1 Identification

Product identifier

Product name: BLACK UV LED INK**Article number: TJxx**

2 Hazard(s) identification

Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Repr. 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



GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester
photoinitiator

3,3,5-Trimethylcyclohexyl acrylate

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

Photoinitiator

propylidynetrimethanol, ethoxylated, esters with acrylic acid

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

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.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If swallowed: Call a poison center/doctor if you feel unwell.
 Rinse mouth.
 If on skin: Wash with plenty of water.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 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.
 If eye irritation persists: Get medical advice/attention.
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

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	≥ 50 - ≤ 100%
	Acute Tox. 4, H302; Skin Sens. 1, H317	
86178-38-3	3,3,5-Trimethylcyclohexyl acrylate	2.5 - 10%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317; STOT SE 3, H336	
	photoinitiator	≥ 0 - ≤ 2.5%
	Repr. 2, H361	
	Ethanol, 2-amino-, polymer with α-hydro-ω-[(1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediy) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)	≤ 2.5%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
	Photoinitiator	≤ 2.5%
	Skin Sens. 1, H317	
28961-43-5	propylidyntrimethanol, ethoxylated, esters with acrylic acid	≤ 2.5%
	Eye Irrit. 2A, H319; Skin Sens. 1, H317	
1333-86-4	Carbon black	≥ 0 - ≤ 2.5%
	Self-heat. 2, H252; Carc. 2, H351	
71868-10-5	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	≥ 0 - ≤ 2.5%
	Repr. 1B, H360; Acute Tox. 4, H302	

4 First-aid measures

Description of first aid measures

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: If symptoms persist consult doctor.

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

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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 Not required.

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.

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).

Ensure adequate ventilation.

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

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires: No special measures required.

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: None.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

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.

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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

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

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

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: Goggles recommended during refilling.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Black
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

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Product name: BLACK UV LED INK

Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

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**

Carbon black. Since the 2006 IARC Monograph for carbon black was published, several investigators have challenged the animal evidence of carcinogenicity as being linked to species specific responses to lung overload that should not be used to predict human risk. While carbon black is carcinogenic to rats following inhalation or intratracheal exposure, it is not carcinogenic to mice, guinea pigs, rabbits or non-human primates by the inhalation route of exposure, or to hamsters by inhalation or intratracheal exposure. In their discussion of interspecies extrapolation, IARC notes that the inflammation seen with lung overload is associated with fibrosis and tumor formation in rats, while in humans, fibrosis is reported, but not tumor formation. In December 2006, following publication of the monograph, Carter et al, detailed mechanisms of lung inflammation demonstrating that rats, as compared to mice and hamsters, exhibited the greatest proinflammatory response. In addition, a 2008 community-based case-control study of cancer risk from occupational exposure to carbon black found no excess risk of lung cancer, further supporting the classification of inadequate evidence in humans. Collectively, the available animal data and human epidemiology studies suggest that carbon black, as contained in this product, does not present a cancer risk to the end user if the handling and personal protective measures contained within this Safety Data Sheet are understood and followed.

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Product name: BLACK UV LED INK

Acute toxicity:

LD/LC50 values that are relevant for classification:

1333-86-4 Carbon black

Oral LD50 10,000 mg/kg (rat)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

1333-86-4 Carbon black: 2B

119-61-9 benzophenone: 2B

108-88-3 Toluene: 3

100-41-4 ethylbenzene: 2B

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Toxic for fish

Additional ecological information:

General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation:

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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Product name: BLACK UV LED INK

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.

14 Transport information

UN-Number

DOT, ADN, IMDG, IATA not regulated

UN proper shipping name

DOT, ADN, 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.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code 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

86178-38-3 3,3,5-Trimethylcyclohexyl acrylate: ACTIVE

photoinitiator: ACTIVE

Photoinitiator: ACTIVE

28961-43-5 propylidynetrimethanol, ethoxylated, esters with acrylic acid: ACTIVE

1333-86-4 Carbon black: ACTIVE

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

Hazardous Air Pollutants

108-88-3 Toluene

100-41-4 ethylbenzene

Proposition 65

Chemicals known to cause cancer:

1333-86-4 Carbon black

119-61-9 benzophenone

100-41-4 ethylbenzene

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Product name: BLACK UV LED INK**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:

108-88-3 Toluene

127-19-5 N,N-dimethylacetamide

Carcinogenic categories**EPA (Environmental Protection Agency)**

108-88-3 Toluene: II

100-41-4 ethylbenzene: D

TLV (Threshold Limit Value established by ACGIH)

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**

GHS07 GHS08

Signal word Danger**Hazard-determining components of labeling:**2-Propenoic acid, 2-[2-(ethenyloxy)ethoxy]ethyl ester
photoinitiator

3,3,5-Trimethylcyclohexyl acrylate

2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one

Photoinitiator

propylidynetrimethanol, ethoxylated, esters with acrylic acid

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

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.

Avoid breathing dust/fume/gas/mist/vapors/spray

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.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

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Product name: BLACK UV LED INK

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

If eye irritation persists: 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.

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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

Self-heat. 2: Self-heating substances and mixtures – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

Carc. 2: Carcinogenicity – Category 2

Repr. 1B: Reproductive toxicity – Category 1B

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3