

Safety Data Sheet

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

Printing date 06/30/2020

Version: 1.0

Reviewed on 06/30/2020

1 Identification**Product identifier****Product name:** S1 Vivid White UV Ink**Article number:** ixS1-vividwhite**Application of the substance / the mixture:** Printing inks**Details of the supplier of the safety data sheet**

Inkcups Now, Corp.

310 Andover Street

Danvers, MA 01923

1-978-646-8980

Information department: compliance@Inkcups.com**Emergency telephone number:** CHEMTREC 1-800-424-9300*** 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. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

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:**

2H-Azepin-2-one, 1-ethenylhexahydro-

Photoinitiator

propylidynetrimethanol, propoxylated, esters with acrylic acid

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

2-phenoxyethyl acrylate

Neopentylglycol(PO)2 Diacrylate

hexamethylene diacrylate

Isobournyl Acrylate

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Product name: S1 Vivid White UV Ink**Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe 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.

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).

Get medical advice/attention if you feel unwell.

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:

13463-67-7 titanium dioxide	≥ 10 - ≤ 50%
Carc. 2, H351	
2235-00-9 2H-Azepin-2-one, 1-ethenylhexahydro-	10 - 25%
STOT RE 1, H372; Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2A, H319; Skin Sens. 1, H317	
53879-54-2 propylidynetrimethanol, propoxylated, esters with acrylic acid	10 - 25%
Eye Irrit. 2A, H319; Skin Sens. 1, H317	
84170-74-1 Neopentylglycol(PO) ₂ Diacrylate	≥ 2.5 - ≤ 25%
Skin Sens. 1, H317	
75980-60-8 Photoinitiator	10 - 25%
Repr. 2, H361	
13048-33-4 hexamethylene diacrylate	2.5 - 10%
Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317	
5888-33-5 Isobournyl Acrylate	2.5 - 10%
Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
48145-04-6 2-phenoxyethyl acrylate	2.5 - 10%
Repr. 2, H361; Skin Sens. 1A, H317	
86273-46-3 2-Propenoic acid, 2-[2-(ethenylloxy)ethoxy]ethyl ester	≥ 2.5 - ≤ 10%
Acute Tox. 4, H302; Skin Sens. 1, H317	

Product name: S1 Vivid White UV Ink

4 First-aid measures

Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult 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 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).

Dispose contaminated material as waste according to item 13.

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.

Product name: S1 Vivid White UV Ink

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

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.

13048-33-4 hexamethylene diacrylate

WEEL Long-term value: 1 mg/m³

DSEN

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

Exposure controls

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.

Avoid contact with the eyes.

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

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

Product name: S1 Vivid White UV Ink

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	White
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.

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.

Product name: S1 Vivid White UV Ink

* 11 Toxicological information

Information on toxicological effects

This product has not been reviewed for carcinogenicity by IARC, NTP, OSHA or ACGIH. It contains titanium dioxide which is not listed as a carcinogen by NTP, OSHA, or ACGIH. However, in 2006, IARC released Monograph Vol. 93 in which it reclassified titanium dioxide from not classifiable as to its carcinogenicity to humans (Group 3) to possibly carcinogenic to humans (Group 2B). The reclassification was based on two studies in which rats were exposed to extremely high concentrations of titanium dioxide pigment powders in a closed chamber for extended periods of time. It is important to note that the results of epidemiology studies which evaluated more than 20,000 titanium dioxide industry workers in Europe and the US did NOT suggest a carcinogenic effect from titanium dioxide dust on the human lung or mortality from other chronic diseases including respiratory diseases not associated with titanium dioxide dust. Based upon the results of these studies, the pigment manufacturer(s) conclude that TiO₂ will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

Acute toxicity:

LD/LC50 values that are relevant for classification:

13463-67-7 titanium dioxide

Oral LD50 > 20,000 mg/kg (rat)
 Dermal LD50 > 10,000 mg/kg (rabbit)
 Inhalative LC50/4 h > 6.82 mg/l (rat)

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

Oral LD50 > 2,000 mg/kg (rat)

13048-33-4 hexamethylene diacrylate

Oral LD50 > 5,000 mg/kg (rat)
 Dermal LD50 > 3,000 mg/kg (rab)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: 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)

13463-67-7 titanium dioxide: 2B
 105-60-2 1,6-hexanolactam: 3
 108-88-3 Toluene: 3

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.

Product name: S1 Vivid White UV Ink

Ecotoxicological 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.

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

Harmful to 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.

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 not regulated

IMDG, IATA UN3082

UN proper shipping name

DOT not regulated

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobournyl Acrylate), MARINE POLLUTANT

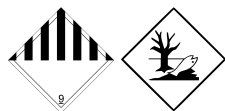
IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobournyl Acrylate)

Transport hazard class(es)

DOT

Class not regulated

IMDG, IATA



Class

9 Miscellaneous dangerous substances and articles

Label

9

Packing group

DOT not regulated

IMDG, IATA III

Environmental hazards:

Product contains environmentally hazardous substances: Isobournyl Acrylate

Marine pollutant:

Symbol (fish and tree)

Product name: S1 Vivid White UV Ink

Special marking (IATA):	Symbol (fish and tree)
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
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Transport/Additional information:

IMDG

Limited quantities (LQ)
Excepted quantities (EQ)

5L
 Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S. (ISOBOURNYL ACRYLATE), 9, III

* 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.

13463-67-7 titanium dioxide: ACTIVE

2235-00-9 2H-Azepin-2-one, 1-ethenylhexahydro-: ACTIVE

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

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

75980-60-8 Photoinitiator: ACTIVE

13048-33-4 hexamethylene diacrylate: ACTIVE

5888-33-5 Isobournyl Acrylate: ACTIVE

48145-04-6 2-phenoxyethyl acrylate: ACTIVE

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

Hazardous Air Pollutants

108-88-3 Toluene

Proposition 65

Chemicals known to cause cancer:

13463-67-7 titanium dioxide

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

108-88-3 Toluene

Product name: S1 Vivid White UV Ink

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

108-88-3 Toluene: II

TLV (Threshold Limit Value established by ACGIH)

13463-67-7 titanium dioxide: A4

105-60-2 1,6-hexanolactam: A5

108-88-3 Toluene: A4

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

13463-67-7 titanium dioxide

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:**

2H-Azepin-2-one, 1-ethenylhexahydro-

Photoinitiator

propylidynetrimethanol, propoxylated, esters with acrylic acid

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

2-phenoxyethyl acrylate

Neopentylglycol(PO)2 Diacrylate

hexamethylene diacrylate

Isobournyl Acrylate

Hazard statements

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe 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.

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).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Product name: S1 Vivid White UV Ink

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.

Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

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

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. 1A: Skin sensitisation – Category 1A

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

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

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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