INKCUPS

Safety data sheet

According to regulations CLP No. 1272/2008 and REACH No. 1907/2006

BB INK - CYAN

Section 1: Product Identification

1.1 Product identifier

Product name	BB INK - CYAN
CAS number	Not applicable
Registration No.	Not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	UV digital ink
Uses advised against	At present no contraindicated use has been identified

1.3 Details of the supplier of the safety data sheet

Supplier

Name: INKCUPS NOW CORPORATION
Full Address: 310 ANDOVER STREET
District and Country: DANVERS, MA 01923
USA

Tel.: 9786468980
Fax: 9786468981
Email: compliance@inkcups.com
Product distribution by: Inkcups

1.4 Emergency telephone numbers

For urgent inquiries refer to: 18004249300

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification (EC No.1272/2008)

Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1A	H317
Repr. 2	H361
Aquatic Chronic 2	H411

The full text for all hazard classes and categories and H hazard statements is displayed in Section 16.

2.2. Label elements

Labeling according to Regulation (EC) No.1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility or the unborn child .
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.
P273	Avoid release to the environment.
P302+P352	IF ON SKIN: Wash with plenty of water/…
P321	Specific treatment (see ... on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/…
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.
P405	Store locked up.

2.3. Other hazards

Handle with care, not all the toxicological properties of this product are known.
UV inks: Exposure to direct sunlight or storage temperatures above 60°C may cause an uncontrolled exothermic polymerization.

Section 3: Composition/information on ingredients

3.1 Substances

		Classification (EC No. 1272/2008)	%
Not applicable			

3.2. Mixtures

Hazardous ingredients		Classification (EC No. 1272/2008)	%
CAS : 66492-51-1 **CE :** 266-380-7 **INDEX :** **REACH:** 01-2119976303-36	(5-ethyl-1,3-dioxan-5-yl)methyl acrylate	Skin Irrit. 2 - H315 Skin Sens. 1B - H317 Aquatic Chronic 2 - H411	25-30
CAS : 5888-33-5 **CE :** 227-561-6 **INDEX :** **REACH:** 01-2119957862-25	Isobornyl acrylate	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317 STOT SE 3 (resp) - H335 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	10-15
CAS : 48145-04-6 **CE :** 256-360-6 **INDEX :** **REACH:** 01-2119980532-35	2-phenoxyethyl acrylate	Skin Sens. 1A - H317 Repr. 2 - H361 Aquatic Chronic 2 - H411	10-15
CAS : 7328-17-8 **CE :** 230-811-7 **INDEX :** **REACH:** 01-2120752384-53	2-(2-ethoxyethoxy)ethyl acrylate	Acute Tox. 3 (cutané) - H311 Acute Tox. 4 (oral) - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1B - H317 Aquatic Chronic 2 - H411	5-10
CAS : 75980-60-8 **CE :** 278-355-8 **INDEX :** 015-203-00-X **REACH:** 01-2119972295-29	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Skin Sens. 1B - H317 Repr. 2 - H361 Aquatic Chronic 2 - H411	5-10

The full text for H hazard statements is displayed in Section 16.

Section 4: First aid measures

4.1. Description of first aid measures

First aid measures after inhalation

-Remove the exposed person to fresh air.
-If breathing difficulties persist, seek medical advice.

First aid measures after skin contact

-If UV inks are splashed, remove contaminated clothing, avoid exposure to direct sunlight or any source of UV radiation.
-Rinse with lots of water for at least 10 minutes, do not use solvents or diluents, use a skin cleanser (soap etc.).
-Seek medical advice if necessary.

First aid measures after eye contact

- Avoid exposure to direct sunlight or any source of UV radiation.
Remove contact lenses if present and easy to do, rinse with plenty of water for at least 10 minutes, holding the eyelids apart.
-Seek medical advice if necessary.

First aid measures after ingestion

-DO NOT INDUCE VOMITING.
-In the event of spontaneous vomiting, clear the airway and seek immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

The severity of the symptoms described will vary depending on the intensity and duration of exposure.

4.3 Indication of any immediate medical attention and special treatment needed

No specific first aid measures.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable	Powders, foams and water spray
Unsuitable	Pressurized water

5.2. Specific hazards arising from the substance or mixture

-Some products may polymerize at high temperatures
-The polymerization of this product is sufficiently exothermic to cause thermal decomposition or explosion of containers
-Thermal decomposition may release irritating fumes, gases or flames, which can, in turn, cause health problems
In case of fire, a dense, black, acrid smoke is produced

5.3. Advice for firefighters

-Firefighters are to be equipped with self-contained breathing apparatus.
-Spray any unopened drums exposed to fire shouldwith water to keep them cool.
-Keep run-off water out of sewers and waterways. In the event of spillage, notify the competent authorities.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition, do not breath vapour (see sections 7 and 8), avoid contact with skin and eyes, remove contaminated clothi

6.2. Environmental precautions

Do not discharge into drains or water courses; comply with current legislation.

6.3. Methods and materials for containment and cleaning up

Use absorbent materials (e.g. sand, diatomaceous earth), clean with a detergent, avoid the use of solvents, dispose of waste in accordance with

6.4. Reference to other sections

Refer to Section 8 for personal protective equipment and Section 13 for disposal considerations.

Section 7: Handling and storage

7.1. Precautions for safe handling

-Before handling, refer to Sections 3, 8 and 11
-Anyone with a history of skin sensitization must handle the product with special care
-Avoid breathing vapour (see sections 7 and 8)
-Avoid contact with skin and eyes
-Follow relevant national occupational hygiene regulations
-Do not drink, eat or smoke in work areas
-Wash hands after use

7.2. Conditions for safe storage, including any incompatibilities

-Store in original containers at room temperature
-Opened containers must be tightly closed and kept upright to prevent leaks
-Keep away from sources of ignition, protect from direct sunlight
-Keep away from oxidizing agents, acids and bases

7.3. Specific end use(s)

Refer to Section 1.2.

Section 8: Exposure controls / personal protection

8.1. Control parameters

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate

DNEL (derived no effect limits)	0.0014 mg/kg (soil) - 0.004 mg/l (fresh water) - 0.019 mg/kg (fresh water sediment) - 0.0019 mg/kg (marine sediment)
OEL (occupational exposure limits)	**ELV (emission limit value)**
PNEC (predicted no effect concentration)	Undetermined

Isobornyl acrylate

DNEL	1.39 mg/kg (Workers; Dermal; Long Term - Systemic Effects) - 0.83 mg/kg (Consumers; Oral; LT-SE) - 0.83 mg/kg (Consu LT-SE)
OEL	**ELV**
PNEC	0.92 ug/l (fresh water) - 0.092 ug/l (sea water) - 0.145 mg/kg (fresh water sediment) - 0.0145 mg/kg (marine sediment) - 0.

2-phenoxyethyl acrylate

DNEL	12 mg/m3 (Workers; Inhalation; Long Term - Systemic Effects) - 77 mg/m3 (Workers; Inhalation; LT - Local Effects) - 3.5 m Dermal; LT - SE)
OEL	**ELV**
PNEC	2 ug/l (fresh water) - 0.2 ug/l (sea water) - 0.02 mg/kg (fresh water sediment) - 0.002 mg/kg (marine sediment) - 0.006 mg/

2-(2-ethoxyethoxy)ethyl acrylate

DNEL	2.6 mg/m3 (Workers; Inhalation; Long Term - Systemic Effects) - 0.083 mg/kg (Workers; Dermal; LT-SE)
OEL	**ELV**
PNEC	0.0032 mg/l (fresh water) - 0.00032 mg/l (sea water) - 0.004 mg/kg (fresh water sediment) - 0.0004 mg/kg (marine sedimen

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

DNEL Undetermined

OEL **ELV**

PNEC 0.00353 mg/l (fresh water) - 0.00353 mg/l (sea water) - 0.29 mg/kg (fresh water sediment) - 0.0557 mg/kg (soil)

DNEL

OEL **ELV**

PNEC

DNEL

OEL **ELV**

PNEC

8.2. Exposure controls

8.2.1. Appropriate technical controls
Refer to Section 7.1.

8.2.2. Personal protective equipment

Eye and face protection

The use of safety goggles is recommended to protect against splashing.

Hand protection

It is possible to use special protective creams; these should not be applied after contamination.
Do not use gloves made of natural rubber or PVC. It is possible to use disposable single-use gloves.

Skin protection

Wear suitable clothing, do not wear contaminated clothing.

Respiratory protection

In the case of frequent use or heavy exposure, respiratory protection may be necessary. Wear an appropriate mask.
Vapor extraction or effective ventilation should be provided at workstations.

8.2.3. Environmental exposure controls

Do not discharge into drains or water courses.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	Undetermined
Odour	Undetermined
Odour threshold	Undetermined
pH	Undetermined
Melting / freezing (°C) point	Undetermined
Initial boiling point and boiling range (° C)	Undetermined
Flash point (° C)	> 100
Evaporation rate	Undetermined
Flammability	Undetermined
Upper / lower flammability limits	Undetermined
Vapour pressure	Undetermined
Vapour density	Undetermined
Relative density	Undetermined
Solubility	Undetermined
n-octanol / water partition coefficient	Undetermined
Auto ignition temperature	Undetermined
Thermal decomposition temperature	Undetermined
Viscosity	Undetermined

9.2. Other information

No additional information available

Section 10: Stability and reactivity

10.1. Reactivity

Reacts with oxidizing agents, acids, bases.
Solar radiation and heat can cause hazardous polymerization.

10.2. Chemical stability

The product is stable under the handling and storage conditions recommended in Section 7.

10.3. Possibility of hazardous reactions

UV-curable formulations contain chemicals that can become unstable (exothermic reactions) under the following conditions:

10.4. Conditions to avoid

Prolonged exposure to temperatures above 40 °C
Prolonged exposure to light and UV radiation

10.5. Incompatible materials

Oxidizing agents, acids, bases.

10.6. Hazardous decomposition products

Thermal decomposition may release irritating fumes, which can, in turn, cause health problems

Section 11: Toxicological Information

11.1. Information on toxicological effects

No experimental data is available for this product. This information was obtained from tests carried out by our suppliers. This product has been ar
Regulation 1272/2008 and classified according to the toxicological hazards of its ingredients.

Acute toxicity
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate(66492-51-1)
LD50 Oral rat > 2000 mg/kg - LD50 dermique lapin > 2000 mg/kg

Isobornyl acrylate(5888-33-5)
LD50 Oral rat = 2300 mg/kg - LD50 dermique lapin = 3000 mg/kg

2-phenoxyethyl acrylate(48145-04-6)
LD50 Oral rat = 5000 mg/kg - LD50 dermique lapin > 2000 mg/kg

2-(2-ethoxyethoxy)ethyl acrylate(7328-17-8)
LD50 Oral rat = 900 mg/kg - LD50 dermique lapin = 400 mg/kg

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide(75980-60-8)
LD50 Oral rat > 5000 mg/kg - LD50 dermique lapin > 2000 mg/kg

Skin corrosion / irritation
2-phenoxyethyl acrylate (48145-04-6) : Negative (Rabbit - OECD 404)
Isobornyl acrylate (5888-33-5) : 1.8 PII 0-8 (rabbit) OECD 404
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) : Irritant (rabbit) OECD 404
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : Irritant (Rabbit; OECD 404)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8) : Negative (rabbit) OECD 404

Serious eye damage / eye irritation
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) : Irritant (rabbit) OECD 405
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : Irritant (Rabbit; OECD 405)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8) : Negative (rabbit) OECD 405

Respiratory or skin sensitization
No specific data available

Germ cell mutagenicity
2-phenoxyethyl acrylate (48145-04-6) : Negative(OECD 471-473-476)
Isobornyl acrylate (5888-33-5) : Negative (OECD 471-476-473)
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : Negative (OECD 471)

Carcinogenicity
Given available data, classification requirements have not been met.

Reproductive toxicity
2-phenoxyethyl acrylate (48145-04-6) : NOAEL: 300 mg/kg (Rat - Oral - OECD422)
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8) : Repr. 2

Specific target organ toxicity (single exposure)
No specific data available

Specific target organ toxicity (repeated exposure)
No specific data available

Aspiration hazard
No specific data available

Symptoms/injuries after inhalation
Prolonged contact may cause irritation to respiratory system.

Symptoms/injuries after ingestion
Ingestion may cause nausea, weakness and effects on the central nervous system.

Symptoms/injuries after skin contact
The acrylic components of UV-curable inks have irritant properties. Prolonged contact with skin or mucous membranes may cause allergic reacti
blistering)

Symptoms/injuries after eye contact
Contact with the eyes may cause irritation.

Section 12: Ecological information

No experimental data is available for this product. The information presented below relates to the individual ingredients for this product.
This information was obtained from tests carried out by our suppliers.

12.1. Toxicity

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) :
CL50/LC50 : 4.00 mg/l - 96h Oncorhynchus mykiss - NOEC/NOEL : 9.00 mg/l Desmodesmus subspicatus (72h) - CE50/EC50 : 20.00 mg/l-48h

Isobornyl acrylate (5888-33-5) :
CL50/LC50 : 0.70 mg/l - 96h Danio rerio - NOEC/NOEL : 0.41 mg/l Pseudokirchneriella subcapitata (72h) - CE50/EC50 : 1.00 mg/l-48h Daphnia

2-phenoxyethyl acrylate (48145-04-6) :
CL50/LC50 : 10.00 mg/l - 96h Leuciscus idus - CE50/EC50 : 1.21 mg/l-48h Daphnia magna

2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) :
CL50/LC50 : 2.60 mg/l - 96h Oncorhynchus mykiss - NOEC/NOEL : 1.00 mg/l Pseudokirchneriella subcapitata - CE50/EC50 : 90.00 mg/l-48h D

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8) :
CE50/EC50 : 3.53 mg/l-48h Daphnia magna

12.2. Persistence and degradability

2-phenoxyethyl acrylate (48145-04-6) : 22.3 % (28days - OECD301D)
Isobornyl acrylate (5888-33-5) : 57% (after 28 days - OECD310)
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) : 28% after 28 days (OECD 301B)
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : 98% after 28 days (OECD 301B)

12.3. Bioaccumulative potential

2-phenoxyethyl acrylate (48145-04-6) : log Kow: 2.58 (25Â°C - OECD117)
Isobornyl acrylate (5888-33-5) : log Kow: 4.52 (OECD117)
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) : 0.9 (log Kow)
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : log Kow: 1.151 (OECD 117)

12.4. Mobility in soil

2-phenoxyethyl acrylate (48145-04-6) : log Koc: 2.2
(5-ethyl-1,3-dioxan-5-yl)methyl acrylate (66492-51-1) : 1.06 (log Koc)
2-(2-ethoxyethoxy)ethyl acrylate (7328-17-8) : log Koc: < 1.25 (OECD 121)

12.5. Results of PBT (persistent, bioaccumulative and toxic) and vPvB (very persistent and very bioaccumulative) assessment

This mixture does not contain any PBT or vPvB substances

12.6. Other adverse effects

No additional adverse effects

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste and empty containers must be handled in accordance with local regulations.
Waste should not be disposed of with household waste or discharged into drains or water courses.

European Waste Catalogue

08 03 12 *Ink waste containing hazardous substances

Section 14: Transport information

Roads ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road)

UN number	3082
Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class	9
Packing group	III
Labels	9
Classification code	M7
Hazard identification n	90
Tunnel restriction cod	3(-)

Railways RID (Regulations concerning the International Carriage of Dangerous Goods by Rail

UN number	3082
Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class	9
Packing group	III
Labels	9
Classification code	M7
Hazard identification n	90

Sea IMDG (International Maritime Dangerous Goods Code)

UN number	3082
Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class	9
Packing group	III
Labels	9
Classification code	M7
Hazard identification n	

Air OACI/IATA

UN number	3082
Shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazard class	9
Packing group	III
Labels	9
Classification code	M7
Hazard identification n	

Pollutant Yes

Potentially hazardous products

(5-ethyl-1,3-dioxan-5-yl)methyl acrylate
Isobornyl acrylate

Product eligible for exemption under special provisions A197 (IATA), 375 (ADR) and 2.10.2.7 (IMDG)

Special precautions to be taken by the user

No particular precautions specified

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Section 15: Regulatory Information

-This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 of 18 December 2006 (known as REACH).
-The product is classified and labeled in accordance with Regulation (EC) No. 1272/2008 of 16 December 2008 (known as CLP).
-This safety data sheet complies with the requirements of GB/T16483-2008 Safety data sheet for chemical products - content and order of sectior
-The products is classified and labeled in accordance with GB15258-2009 general rules for preparation of precautionary label for chemicals.

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

European Union

Comply with Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
Follow Directive 94/33/EC on the protection of young people at work.

China

Follow law of the Peoples Republic of China on Prevention and Control of Occupational Diseases.

15.2. Chemical safety assessment

No chemical safety evaluation has been performed.

Section 16: Other information

General information

This product is intended for professional users. See technical data sheet for additional information on intended use.

The information contained in this safety data sheet is based on our knowledge at the date of publication, and relates to the product concerned and suppliers for the ingredients used in the product.

Users should be aware of the potential risks when a product is used for purposes other than those for which it was intended

Revisions

Revision date	19/12/18
Revision	1
SDS No.	3915
Date	27/11/17

Hazard statements in full

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H318 : Causes serious eye damage.

H361 : Suspected of damaging fertility or the unborn child .

H411 : Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms used

CAS Chemical Abstract Service
EINECS European Inventory of Existing Commercial Chemical Substances
REACH Registration, Evaluation, Authorisation of Chemicals

Method of assessing information on hazards

		Method used for classification
Skin Irrit. 2	H315	Calculation based method
Skin Sens. 1A	H317	Calculation based method
Eye Dam. 1	H318	Calculation based method
Repr. 2	H361	Calculation based method
Aquatic Chronic 2	H411	Calculation based method