

Safety Data Sheet

1. IDENTIFICATION

Product identifier

Mixture identification: Mixture
Trade name: UV Ink Cartridge (W)

Recommended use of the chemical and restrictions on use

Recommended use: Ink for inkjet printing

Details of the supplier of the safety data sheet

Company: Anker Innovations Limited
Unit 56, 8th Floor, Tower 2,
Admiralty Centre, 18 Harcourt Road, Hong Kong
United States Mon-Fri 9:00AM - 4:00PM (PT) +1 (800) 221 0126

For further information, please contact

Email: support@ankermake.com

2. HAZARD(S) IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Reproductive toxicity	Category 1B - (H360Df)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements



Signal word

Danger

Hazard statements

H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H360Df - May damage the unborn child. Suspected of damaging fertility
H372 - Causes damage to organs through prolonged or repeated exposure
H411 - Toxic to aquatic life with long lasting effects
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapors/spray

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P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
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 or doctor

2.3. Other hazards

Toxic to aquatic life.

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Chemical name	EC No (EU Index No)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number	No.
Hexamethylene diacrylate (HDODA)	235-921-9	13048-33-4	25 - 40	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)	01-2119484737-22-xxxx	
Tetrahydrofurfuryl acrylate esters	219-268-7	2399-48-6	15 - 30	Acute Tox. 4 (H302) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1B (H317) Repr. 1B (H360Df) Aquatic Chronic 2 (H411)	01-2120738396-46-0005	
N-Vinyl-2-pyrrolidone	201-800-4	88-12-0	5 - 10	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Irrit. 2A (H319) Skin Sens. 1B (H317) STOT RE 1 (H372) [liver, respiratory system]	01-2119498301-39-0002	
2-Phenoxyethyl acrylate	256-360-6	48145-04-6	15 - 20	Skin Sens. 1A (H317) Repr. 2 (H361fd) Aquatic Chronic 2 (H411)	01-2119980532-35-xxxx	
2,4, 6-trimethylbenzoyl-bis (p-toluene Phosphine oxide	278-355-8	270586-78-2	5 - 10	Repr. 2 (H361f)	01-2120940794-45-0000	3
Titanium Dioxide	236-675-5	13463-67-7	4 - 8	Carc. 2 (H351) [Inhalation]	01-2119489379-17-xxxx	1, 1

Note

REACH No: Registration number(s) may not be provided because substance(s) are exempted or not yet required to be registered under REACH

1. Substance with a Community workplace exposure limit

3. SVHC: Substances of Very High Concern for Authorization

10. Titanium Dioxide; [in powder form containing 1% or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter $\leq 10 \mu\text{m}$.

Chemical name	EU - CLP (1272/2008) - Annex VI - Table 3 - Acute Toxicity Estimates (ATEs)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Tetrahydrofurfuryl acrylate esters 2399-48-6				1
Hexamethylene diacrylate (HDODA) 13048-33-4			1	1

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2-Phenoxyethyl acrylate 48145-04-6				1
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Full text of H- and EUH-phrases: see section 16

TSCA section 6(h):

2,4,6-TTBP (CAS:732-26-3)/HCBP(CAS:87-68-3)/DecaBDE(CAS:1163-19-5)/PCTP(CAS:133-49-3)/PIP(3:1)(CAS:68937-41-7) are Not Detected in conformity with TSCA section 6(h).

4. FIRST-AID MEASURES

4.1. Description of first aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

contact lenses and

Immediately flush with plenty of water. After initial flushing, remove any

continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists.

Skin Contact

Remove

Wash off immediately with soap and plenty of water for at least 15 minutes.

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Inhalation

is irregular or

Remove person to fresh air and keep comfortable for breathing. If breathing

Ingestion

immediately. Never give

stopped, administer artificial respiration. Get medical attention immediately.

Do NOT induce vomiting. Call a physician or poison control center

anything by mouth to an unconscious person.

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

None under normal use conditions.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Foam. Carbon dioxide (CO₂). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions. Hazardous polymerization may take place during a fire due to heat. Closed containers could violently rupture.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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6.2. Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

6.4. Reference to other sections

See Section 12 for more information.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Keep at temperatures between 15°-35°C (59°-95°F). Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Protect from direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

7.3. Specific end use(s)

Exposure scenario
Risk Management
Methods (RMM)

No information available.
The information required is contained in this Safety Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

Chemical name	United Kingdom
Titanium Dioxide 13463-67-7	STEL: 30 mg/m ³ total inhalable STEL: 12 mg/m ³ respirable TWA: 10 mg/m ³ total inhalable TWA: 4 mg/m ³ respirable
Chemical name	France
Titanium Dioxide 13463-67-7	TWA/VME: 10 mg/m ³
Chemical name	Germany DFG
Titanium Dioxide 13463-67-7	TWA/MAK: 0.3 mg/m ³ respirable fraction TWA/AGW: 1.25 mg/m ³ respirable fraction TWA/AGW: 10 mg/m ³ inhalable fraction Peak: 2.4 mg/m ³ respirable fraction
Chemical name	Spain
Titanium Dioxide 13463-67-7	TWA/VLA-ED: 10 mg/m ³
Chemical name	Portugal
Titanium Dioxide 13463-67-7	TWA/VLE-MP: 10 mg/m ³
Chemical name	Denmark
Titanium Dioxide 13463-67-7	TWA: 6 mg/m ³

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Chemical name	Austria
Titanium Dioxide 13463-67-7	STEL/KZGW: 10 mg/m ³ alveolar dust, respirable fraction TWA/TMW: 5 mg/m ³ alveolar dust, respirable fraction
Chemical name	Switzerland
Titanium Dioxide 13463-67-7	TWA/MAK: 3 mg/m ³ respirable dust
Chemical name	Poland
Titanium Dioxide 13463-67-7	TWA/NDS: 10 mg/m ³ inhalable fraction
Chemical name	Norway
Titanium Dioxide 13463-67-7	TWA: 5 mg/m ³
Chemical name	Ireland
Titanium Dioxide 13463-67-7	TWA: 10 mg/m ³ total inhalable dust TWA: 4 mg/m ³ respirable dust STEL: 30 mg/m ³ respirable dust STEL: 12 mg/m ³
Chemical name	Australia TWA
Titanium Dioxide 13463-67-7	TWA: 10 mg/m ³ inhalable dust

Derived No Effect Level (DNEL)

Chemical name	DNEL - Dermal (Workers)	DNEL - Inhalation (Workers)
N-vinylcaprolactam 88-12-0	0.014 mg/kg (Systemic long term)	0.1 mg/m ³ (Systemic long term) 0.17 mg/m ³ (Local long term)
Tetrahydrofurfuryl acrylate esters 2399-48-6	4.9 mg/kg (Systemic long term)	1.73 mg/m ³ (Systemic long term)
Hexamethylene diacrylate (HDODA) 13048-33-4	2.77 mg/kg (Systemic long term)	24.5 mg/m ³ (Systemic long term)
2-Phenoxyethyl acrylate 48145-04-6	1.5 mg/kg (Systemic long term)	10 mg/m ³ (Systemic long term) 77 mg/m ³ (Local long term)

Predicted No Effect Concentration (PNEC)

No information available.

8.2. Exposure controls Engineering Measures

Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles). If splashes are likely to occur. Wear suitable face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye Protection

Safety glasses with side-shields. Goggles. Face-shield. Avoid contact with eyes. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

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Hand Protection

Chemical resistant protective gloves.
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time): eg. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers. Taking into account the varying conditions, the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Due to different glove types, the manufacturer's directions for use should be observed. Replace gloves immediately when torn or any change in appearance is noticed such as dimension, color, flexibility.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

Environmental exposure controls No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Odor	Mild. Sweet. Acrylic.
Odor Threshold	No information available

Property	Values	Remarks • Method
Melting Point / Freezing Point	No data available	None known
Boiling Point / Boiling Range	> 149 °C	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Flash Point	> 94 °C	Pensky Martens Closed Cup (PMCC)
Autoignition Temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Vapor Pressure	No data available	None known
Relative density	1.14	None known
Bulk density	No data available	

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Density	No data available	
Vapor Density	No data available	None known
Particle characteristics		
Particle Size	No data available	
Particle Size Distribution	No data available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing. Do not store for longer periods at temperatures above 93°C (200°F).

10.4. Conditions to avoid

Temperatures above 93 °C / 200 ° F. Protect from direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO₂). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity

Inhalation	Specific test data for the substance or mixture is not available.
Eye Contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	745.90 mg/kg
ATEmix (dermal)	4,956.80 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-dust/mist)	99,999.00 mg/l
ATEmix (inhalation-vapor)	99,999.00 mg/l

Unknown Acute Toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.
 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

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0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)
Hexamethylene diacrylate (HDODA) 13048-33-4	= 5 g/kg (Rat)
2-Phenoxyethyl acrylate 48145-04-6	= 4660 µL/kg (Rat)

Chemical name	Dermal LD50
N-vinylcaprolactam 88-12-0	= 1040 mg/kg (Rabbit)
Hexamethylene diacrylate (HDODA) 13048-33-4	= 3600 mg/kg (Rabbit)

Chemical name	Inhalation LC50
N-vinylcaprolactam 88-12-0	> 3070 mg/L (Rat) 4 h
Titanium Dioxide 13463-67-7	= 5.09 mg/L (Rat) 4 h

Skin corrosion/irritation

Causes skin irritation (pain, redness and swelling). The statement is derived from products of similar structure or composition with appropriate test data. OECD Test No. 435: In Vitro Membrane Barrier Test Method for Skin Corrosion.

Eye damage/irritation

Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components).

Sensitization

Specific test data for the substance or mixture is not available. May cause an allergic skin reaction. (based on components).

Mutagenic Effects

Specific test data for the substance or mixture is not available.

Carcinogenic effects

Specific test data for the substance or mixture is not available.

Reproductive Effects

Specific test data for the substance or mixture is not available. May damage the unborn child. Suspected of damaging fertility. (based on components).

CMR, categories 1 and 2

This product contains one or more substances which are classified in the EU as carcinogenic, mutagenic and/or reprotoxic

Chemical name	CMR, categories 1 and 2
Tetrahydrofurfuryl acrylate esters 2399-48-6	Repr. 1B (H360Df)
2-Phenoxyethyl acrylate 48145-04-6	Repr. 2

STOT - single exposure

Specific test data for the substance or mixture is not available.

STOT - repeated exposure

Specific test data for the substance or mixture is not available. Causes damage to organs through prolonged or repeated exposure. (based on components).

Target organ effects

Liver, Respiratory system.

Aspiration hazard

Specific test data for the substance or mixture is not available.

11.2 Information on other hazards

No information available

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Specific test data for the substance or mixture is not available. Toxic to aquatic life with long lasting effects. (based on components).

Unknown aquatic toxicity

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Contains 0 % of components with unknown hazards to the aquatic environment

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Endocrine disrupting properties.

This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

**Waste from
residues/unused products
Contaminated Packaging**

Contain and dispose of waste according to local regulations.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Note:

This information is not intended to convey all specific transportation requirements relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

ADR

Not Regulated

ADR Special Provision 375 applies only to environmentally hazardous substances, UN3077 and UN3082. These items may be shipped as "not regulated" if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per inner packaging) for solids and the packaging used meets the defined standards.

ICAO / IATA / IMDG / IMO

Not Regulated

ICAO/IATA Special Provision A197 applies only to environmentally hazardous substances, UN3077 and UN3082. These items may be shipped as "not regulated" if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per inner packaging) for solids and the packaging used meets the defined standards.

IMDG code 2.10.2.7 applies only to marine pollutants. These items may be shipped as "not regulated" and no marine pollutant mark is required if in quantities of 5L or less (per inner packaging) for liquids or 5KG or less (per

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inner packaging) for solids and the packaging used meets the defined standards.

15. REGULATORY INFORMATION

15.1. US Federal Regulations

Toxic Substance Control Act (TSCA) :

All chemical substances in this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory or are otherwise in compliance with TSCA inventory requirements. The commercial activities related to this product are in compliance with Section 6 (Chemical Management) of TSCA and its implementing regulations.

California Proposition 65:

Based on test results, this product does not contain chemicals listed under California Proposition 65 at levels that would require a warning. This product is compliant with California Proposition 65 requirements.

15.2. European Union

International Inventories

For further information, please contact: Supplier (manufacturer/importer/downstream user/distributor)

Regulation (EC) No. 1907/2006 (REACH), Article 57

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59).

15.3. Chemical safety assessment

No information available.

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H351 - Suspected of causing cancer

H360Df - May damage the unborn child. Suspected of damaging fertility

H361f - Suspected of damaging fertility

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long lasting effects

H413 - May cause long lasting harmful effects to aquatic life

TSCA test report No. AGC01110241114-004 by AGC, Issued Data: Dec. 26, 2024.

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value

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Revision Date

11-Sep-2025

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet