

Safety Data Sheet

acc. to OSHA HCS

Printing date 09/15/2022

Reviewed on 09/15/2022

1 Identification

- **Product identifier**
- **Trade name:**
- **Product number:** UVPSA-10J UV-PSA Screenprint Spacer Adhesive
- **Application of the substance / the mixture** UV-PSA Screenprint Spacer Adhesive
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Kayaku Advanced Materials, Inc.
 200 Flanders Road
 Westborough, MA 01581
 Tel: (617) 965-5511
 Fax: (617) 965-5818
- **Information department:**
 Product Safety
 Email: productsafety@kayakuAM.com
- **Emergency telephone number:**
 Kayaku Advanced Materials : 617-965-5511
 Chemtrec USA Emergency : 800-424-9300
 Chemtrec International Emergency : 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



Acute Toxicity - Oral 4 H302 Harmful if swallowed.
 Acute Toxicity - Dermal 4 H312 Harmful in contact with skin.
 Sensitization - Skin 1 H317 May cause an allergic skin reaction.

 Aquatic Acute 3 H402 Harmful to aquatic life.
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
 Photosensitive Monomer
 Photosensitive Resin
- **Hazard statements**
 H302+H312 Harmful if swallowed or in contact with skin.
 H317 May cause an allergic skin reaction.
 H402 Harmful to aquatic life.

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H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P302+P352 If on skin: Wash with plenty of soap and water.

P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1

Fire = 1

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

	Photosensitive Resin	35-45%
	⚠ Sensitization - Skin 1, H317; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	
	Photosensitive Monomer	30-40%
	⚠ Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Sensitization - Skin 1, H317; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	
8008-20-6	Kerosine (petroleum)	<0.3%
	⚠ Carcinogenicity 2, H351; Aspiration Hazard 1, H304; ⚠ Skin Irritation 2, H315; Specific Target Organ Toxicity - Single Exposure 3, H335-H336; Flammable Liquids 4, H227	

· **Additional Components:**

Synthetic Resin	15-25%
Photoinitiator	1-5%

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Additive

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1-5%

4 First-aid measures

- **Description of first aid measures**

- **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact:**

Wash eyes immediately with a large amount of water or normal saline, occasionally lifting upper and lower eye lids until no evidence of chemical remains (about 20 minutes). Remove contact lenses if present and easy to remove. Seek immediate medical attention.

- **After swallowing:**

Do not induce vomiting unless instructed to do so by a physician. Wash out mouth with water and keep person at rest. Seek immediate medical attention.

- **Information for 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** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

Alcohol resistant foam

Fire-extinguishing powder

Carbon dioxide

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

- **Advice for firefighters**

- **Protective equipment:** Wear SCBA.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** 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).

- **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.

- **Protective Action Criteria for Chemicals**

- **PAC-I:**

None of the ingredients are listed.

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· PAC-2:
None of the ingredients are listed.
· PAC-3:
None of the ingredients are listed.

7 Handling and storage

· Handling:
· Precautions for safe handling
Ensure good ventilation/exhaust at the workplace.
Keep away from heat and direct sunlight.
· Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
· Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and containers: *No special requirements.*
· Information about storage in one common storage facility: *Store away from oxidizing agents.*
· Further information about storage conditions:
Keep container well-sealed in cool, dry location.
Protect from heat and direct sunlight.
Store receptacle in a well ventilated area.
Protect from UV light.
· 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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· Additional information: *The lists that were valid during the creation were used as basis.*
· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures: *Wash hands before breaks and at the end of work.*
· Respiratory equipment:
In the case of vapour formation use a NIOSH approved respirator with filter for organic vapour.
· Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
· Material of gloves *Nitrile rubber, NBR*
· Penetration time of glove material *Contact glove manufacture for break-through time.*

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· **Eye protection:**



Tightly sealed goggles

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Liquid
· Color:	Light yellow
· Odor:	acrylic-like
· Odor threshold:	Not determined.

· pH-value:	Not determined.
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· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	>70 °C (>158 °F)

· Flash point:	109 °C (228.2 °F)
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· Flammability (solid, gaseous):	Not applicable.
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· Decomposition temperature:	Not determined.
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· Auto igniting:	Product is not selfigniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· Vapor pressure:	Not determined.
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· Density at 20 °C (68 °F):	0.93 g/cm ³ (7.76085 lbs/gal)
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· Relative density	Not determined.
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· Vapor density	Not determined.
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· Evaporation rate	1.6-2.3 (BuAc=1)
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· **Solubility in / Miscibility with**

· Water:	Fully miscible.
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· Partition coefficient (n-octanol/water):	Not determined.
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· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**

· VOC content:	0.00 %
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· Other information	No further relevant information available.
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10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Polymerization.
- **Conditions to avoid**
 - Contact with incompatible materials.
 - Heat, flames and sparks. Extremes of temperature and direct sunlight.
 - Protect from exposure to UV light.
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Nitrogen oxides (NO_x)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

 · **LD/LC50 values that are relevant for classification:**

Synthetic Resin

Oral	LD50	> 300 mg/kg (Rat)
Dermal	LD50	> 1,000 mg/kg (Rat)

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

 · **Carcinogenic categories**

 · **IARC (International Agency for Research on Cancer)**

8008-20-6 Kerosine (petroleum)

2B

 · **NTP (National Toxicology Program)**

None of the ingredients are listed.

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients are 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.
- **Additional ecological information:**
- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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- **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:**
Must not be disposed of as regular garbage/trash. Do not allow product to reach sewage system.
Disposal must be made in accordance with Federal, State, and Local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made in accordance with Federal, State, and Local regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Not Regulated |
| · Packing group | |
| · DOT, ADR, 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 are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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· Hazardous Air Pollutants	
None of the ingredients are listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
None of the ingredients are listed.	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	
· Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	
· Carcinogenic categories	
· EPA (Environmental Protection Agency)	
None of the ingredients are listed.	
· TLV (Threshold Limit Value)	
8008-20-6	Kerosine (petroleum) A3
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients are listed.	

- **California SCAQMD Rule 443.1 VOC's:** No information available.
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**
 - Photosensitive Monomer
 - Photosensitive Resin
- **Hazard statements**
 - H302+H312 Harmful if swallowed or in contact with skin.
 - H317 May cause an allergic skin reaction.
 - H402 Harmful to aquatic life.
 - H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 - P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 - P273 Avoid release to the environment.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
 - P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
 - P302+P352 If on skin: Wash with plenty of soap and water.
 - P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 - P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P337+P313 If eye irritation persists: Get medical advice/attention.

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- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 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.

- **Department issuing SDS:** Product safety department
· **Contact:** Tom Cole, EHS Manager (tcole@kayakuAM.com)

· **Revision History:**

The hazard classification and precautionary statements for the mixture in Section 2 were revised.

- **Date of preparation / last revision** 09/15/2022

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
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
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Sensitization - Skin 1: Skin sensitisation – Category 1
Carcinogenicity 2: Carcinogenicity – Category 2
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
Aspiration Hazard 1: Aspiration hazard – Category 1
Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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