

Printing date 05/22/2017

Safety Data Sheet acc. to OSHA HCS

Reviewed on 05/22/2017

1 Identification of the substance/mixture and of the company

- · Product identifier
- · Trade name: UV-1006S UV Curable Dielectric
- · Application of the substance / the mixture Screen printing ink
- · Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Applied Ink Solutions 17 Hampshire Drive, Unit 8 Hudson, NH 03051 USA

- Information department: Product Safety Email: sales@appliedinksolutions.com
- Emergency telephone number: Chemtrec USA Emergency : <u>800-424-9300</u> Chemtrec International Emergency : <u>703-527-3887</u> Applied Ink Solutions : <u>603-595-6221</u>

2 Hazard(s) identification

· Classification of	f the substance or mixture
GHS0	05 Corrosion
Eye Dam. 1	H318 Causes serious eye damage.
GHS0	07
Skin Irrit. 2	H315 Causes skin irritation. H317 May cause an allergic skin reaction.
Aquatic Acute 3	H402 Harmful to aquatic life. 23 H412 Harmful to aquatic life with long lasting effects.
• Label elements • GHS label eleme • Hazard pictogra	ents The product is classified and labeled according to the Globally Harmonized System (GHS).
GHS05 GHS	507
· Signal word Dat	nger
Polyester Resin	ning components of labeling:
Epoxide Monom	
• Hazard statemen	s[p-(2,3-epoxyproxy)phenyl]-,polymers nts

- H315 Causes skin irritation.
- H318 Causes serious eye damage.

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	e an allergic skin reaction.		
H402 Harmful t			
v	o aquatic life with long lasting effects.		
• Precautionary s			
P261	Avoid breathing dust/fume/gas/mist/vapors/spray		
P280	Wear protective gloves/protective clothing/eye protection/face protection.		
P273	Avoid release to the environment.		
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.		
<i>P305+P351+P</i> .	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.		
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.		
P337+P313	If eye irritation persists: Get medical advice/attention.		
P302+P352	IF ON SKIN: Wash with plenty of soap and water.		
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 s	0		
· NFPA ratings ($(scale \ 0 - 4)$		
	lealth = 2 $ire = 1$		
	eactivity = 0		
· HMIS-ratings (· HMIS-ratings (scale 0 - 4)		
HEALTH2Health = 2FIRE1Fire = 1REACTIVITY0Reactivity = 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:		
Polyester Resin	40-60%	
♦ Eye Dam. 1, H318		
Epoxide Monomer	25-50%	
Eye Irrit. 2A, H319; Skin Sens. 1B, H317		
25085-96-8 Propane, 2,2-bis[p-(2,3-epoxyproxy)phenyl]-,polymers	10-25%	
Aquatic Chronic 2, H411; 🚯 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317; Aquatic Acute 2, H401		

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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. 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.
- · 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
- ABC powder
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 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
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation
 Keep away from ignition sources

 Environmental precautions:
 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.

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• PAC-1:

None of the ingredients are listed.

· 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. Prevent formation of aerosols.
- 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:* Do not store together with alkalis (caustic solutions). Do not store together with oxidizing and acidic materials.
- 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
- \cdot 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:
- Keep away from food and beverages.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the skin.
- Avoid contact with the eyes and skin.
- · Respiratory equipment:
- In case of low exposure, use cartridge respirator. In case of intensive or longer exposure, use SCBA.
- · Protection of hands:



Protective gloves

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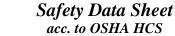
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- *The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Material of gloves Nitrile rubber, NBR*
- · Penetration time of glove material Contact glove manufacture for break-through time.
- Eye protection:



Tightly sealed goggles

9 Physical and chemical properties · Information on basic physical and chemical properties · General Information · Appearance: Form: Thick liquid Color: Straw colored · Odor: Acrylic-like · Odor threshold: Not determined. · pH-value: Not determined. · Change in condition Melting point/Melting range: Undetermined. **Boiling point/Boiling range:** Undetermined. · Flash point: $>100 \ ^{\circ}C \ (>212 \ ^{\circ}F)$ · Flammability (solid, gaseous): *Not applicable.* · Ignition temperature: Not determined. Decomposition temperature: · Auto igniting: Product is not selfigniting. Product does not present an explosion hazard. · Danger of explosion: · Explosion limits: Lower: Not determined. Upper: Not determined. · Vapor pressure: Not determined. · Density: See other information · Relative density Not determined. · Vapor density Not determined. · Evaporation rate 1.6-2.3 (BuAc=1) · Solubility in / Miscibility with Water: Water miscible No · Partition coefficient (n-octanol/water): Not determined. · Viscosity: Dynamic: Not determined. Kinematic: Not determined. · Solvent content: 0.0 % Organic solvents: (Contd. on page 6)



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Solids content: • Other information 100 % 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 Heat, flames and sparks. Extremes of temperature and direct sunlight. Contact with incompatible materials.
- · Incompatible materials: Strong Oxidizing Agents, Strong Acids, Strong Bases
- · Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Hydrogen chloride gas

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Strong irritant with the danger of severe eye injury.
- 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)

None of the ingredients are listed.

· 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.

· Ecotoxical effects:

· Remark: Harmful to fish

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· 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. 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:

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.

14 Transport information	
· UN-Number · DOT, ADR, IMDG, IATA	Not Regulated
$\cdot ADN$	Not Regulated
· UN proper shipping name	
· DOT, ADR, IMDG, IATA	Not Regulated
$\cdot ADN$	Not Regulated
· Transport hazard class(es)	
· DOT, ADR, IMDG, IATA	
· Class	Not Regulated
· ADN/R 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

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

• Section 355 (extremely hazardous substances):

None of the ingredients are listed.

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• Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

• TSCA (Toxic Substances Control Act): All ingredients are listed or comply with TSCA regulations. · 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 established by ACGIH)

None of the ingredients are listed.

· 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



· Signal word Danger

· Hazard-determ	ining components of labeling:
Polyester Resin	
Epoxide Monon	
*	is[p-(2,3-epoxyproxy)phenyl]-,polymers
· Hazard stateme	
H315 Causes sh	kin irritation.
H318 Causes se	erious eye damage.
H317 May caus	e 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
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P305+P351+P	338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present
	and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
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If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

• Other regulations, limitations and prohibitive regulations

RoHS 2 2011/65/EU along with EU Directive 2022/19/EU – Waste from Electrical and Electronic Equipment (WEEE):

Applied Ink Solutions products do not exceed the amount of allowable levels concerning: Cadmium (Cd); Hexavalent Chromium (CrVI); Mercury (Hg); Lead (Pb); Polybrominated Biphenyls (PBB's) as bromide; Polybrominated Diphenyl Ethers (PBDEs) as bromide, decaBDE.

Applied Ink Solutions has confirmed with our precious metal suppliers that they do not use conflict minerals, as outlined in the **Dodd-Frank Wall Street Reform and Consumer Protection Act in Title XV, Section 1502.**

Registration, Evaluation and Authorization of Chemicals (REACH) & Substances of Very High Concern (SVHC): This product does not contain substances on the SVHC list. **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out

• 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: Mr. Cole
- Revision History: New SDS 04/25/2017

· Date of preparation / last revision 05/22/2017 Rev. 1

• Abbreviations and acronyms:

ADR: Accord européen sur le transport 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 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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) 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 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A Skin Sens. 1: Skin sensitisation - Category 1 Skin Sens. 1B: Skin sensitisation – Category 1B Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard - Category 2 Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard - Category 3 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3