



## SAFETY DATA SHEET

### Thermochromic UV Cure Screen Ink - Bis A Free

Page 1 of 7

MSDS109 Revision 4  
Revision Date 07/22/2019

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** UV Screen Ink BIS A Free  
**Additional Names** None  
**Description** Thermochromic UV Screen Ink for use in color change inks.  
**Intended Use** Color Change Materials.  
**Company** LCR Hallcrest  
1911 Pickwick Lane  
Glenview  
IL 60026 USA  
**Web** [www.hallcrest.com](http://www.hallcrest.com)  
**Telephone** +1 847 998 8580  
**Fax** +1 847 998 6866  
**Email** [sales@hallcrest.com](mailto:sales@hallcrest.com)  
**Emergency telephone number** Chemtel Domestic: 800-255-3924  
Intl: +01-813-248-0585

#### 2. HAZARDS IDENTIFICATION.

**GHS Classification** Skin Irrit. 2: H315; Skin Sense 1 H317 Eye Irrit. 2: H319;

**GHS Label Elements**

**Pictograms**



**Signal Word  
 Hazard Statements**

**Precautionary  
 Statement**

**Classification  
 1994/45/EC**

Warning  
 Skin Irrit. 2: H315 - Causes skin irritation.  
 Skin Sensitization Cat 1: H317 – May cause an allergic skin reaction.  
 Eye Irrit. 2: H319 - Causes serious eye irritation.  
 P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P264 - Wash thoroughly after handling.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 - IF ON SKIN: Wash with plenty of water  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P321 - Specific treatment (see ... on this label).  
 P332+P313 - If skin irritation occurs: Get medical advice/attention.  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 - If eye irritation persists: Get medical advice/attention.  
 P362 - Take off contaminated clothing and wash before reuse.  
 P363 - Wash contaminated clothing before reuse.  
 P501 - Dispose of contents/container to an approved waste disposal plant

Skin Irrit. 2: H315; Eye Irrit. 2: H319;

3. COMPOSITION / INFORMATION ON INGREDIENTS.			
Hazardous ingredients	Classification	Conc.	CAS
Colour developer	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;	10-20%	PROPRIETARY
2-Propenoic acid, monoester with 1,2-Propanediol	Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318 Skin sensitisation (Category 1), H317	0.1 – 1%	25584-83-2
Trimethylolpropane polyoxyethylene triacrylate	Skin irritation (Category 2), H315 Eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335	5 – 10%	28961-43-5
Glycerol propoxylated, esters with acrylic acid	Skin Sensitization Cat 1: H317 Eye Irrit. 2: H319	10 – 25%	52408-84-1
Acrylated resin		10 – 25%	PROPRIETARY

**4. FIRST AID MEASURES**

**Description of first aid measures**

**Skin contact** Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist  
**Eye contact** Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical

attention if irritation or symptoms persist.

**Inhalation** Move the exposed person to fresh air. Seek medical attention.

**Ingestion** Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

**Most important symptoms and effect, both acute or delayed.**

**Skin contact** Irritating to the skin.

**Eye contact** Irritating to the eyes.

**Inhalation** Irritating to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.

**Ingestion** Ingestion may cause nausea and vomiting.

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

**Skin contact** Itching. Wash off immediately with plenty of soap and water.

**Eye contact** May cause irritation to the eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.

**Inhalation** Inhalation of dust may cause shortness of breath.

**Ingestion** Ingestion may cause nausea and vomiting. If you feel unwell, seek medical advice (show the label where possible).

**5. FIRE FIGHTING MEASURES**

**Extinguishing Media** Use as appropriate: carbon dioxide (CO<sub>2</sub>), dry chemical, foam.

**Unsuitable Extinguishing Media** If one of the following is listed in Section 3 (Copper, Zinc, or Aluminum) then water, CO<sub>2</sub>, foam and ABC powder are not suitable extinguishing media.

**Specific hazards arising from the chemical** Burning produces irritating, toxic and obnoxious fumes.

**Special protective actions for fire-fighters** Wear suitable respiratory equipment when necessary.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, protective equipment and emergency procedures** Ensure adequate ventilation of the working area. Wear suitable protective equipment.

**Environmental Precautions** Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

**Methods and material for containment and cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly. Prevent product from entering drains. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**7. HANDLING AND STORAGE**

**Individual protection measures** Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition.

**Conditions for safe storage, including incompatibilities:** Keep away from open flames, hot surfaces and sources of ignition. Keep at temperature not exceeding 40°C. Keep in properly labeled containers.

**Specific end uses:** Keep away from sources of ignition – No smoking

**Suitable Packaging:** Plastic Containers

**Incompatible Materials** Carbon steel, copper and copper alloys. Strong oxidizing agents. polymerization initiators.

## Peroxides

**Further Information:** On processing FF powders for masterbatch heating may result in generation of formaldehyde. Ensure adequate ventilation of all fumes.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Individual protection measures** Wear chemical protective clothing.  
**Eye/face protection** Approved safety goggles

**Skin protection – Hand protection** Chemical resistant gloves (PVC).

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Environmental Exposure Controls** Appropriate local exhaust ventilation is required.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Paste  
**Colors** Product Specific  
**Odor** Acrylic  
**Odor threshold** N/A  
**pH** N/A  
**Melting Point/Freezing Point** No testing available.  
**Initial Boiling Point and Boiling Range** N/A  
**Flash Point** >94 °C (calculated)  
**Evaporation rate** No testing available.  
**Flammability** No testing available.  
**Upper/Lower Flammability or Explosive Limits** No testing available.  
**Vapor Pressure** No testing available.  
**Specific Gravity** 1.0983  
**Solubility** Insoluble in water.

### 10. STABILITY AND REACTIVITY

**Reactivity** Stable under normal conditions.  
**Chemical Stability** Stable under normal conditions.  
**Possibility of hazardous reactions** None under normal processing. Hazardous polymerization may occur upon depletion of inhibitor – may cause heat and pressure build up in closed containers.  
**Conditions to avoid** Temperatures above 40°C. Container may rupture on heating. Loss of inhibitor. Protect from light. Loss of air.  
**Incompatible materials** Carbon steel, copper and copper alloys. Strong oxidizing agents. polymerization initiators. Peroxides, Strong bases  
**Hazardous Decomposition Products** Formaldehyde may be generated and other harmful fumes.

### 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information Colour developer</b>	Oral Rat LD50: 3400 mg/kg
2-Propenoic acid, monoester with 1,2-Propanediol	<b>Skin corrosion/irritation</b> Skin - Rabbit Result: Causes burns. <b>Serious eye damage/eye irritation</b> No data available <b>Respiratory or skin sensitisation</b> <b>Germ cell mutagenicity</b> Mutagenicity (micronucleus test)

	<p>Mouse - male and female          Result: negative</p>
<p>Trimethylolpropane          polyoxyethylene          triacrylate</p>	<p><b>Acute toxicity</b>          No data available          Inhalation: No data available          Dermal: No data available          No data available  <b>Skin corrosion/irritation</b>          No data available  <b>Serious eye damage/eye irritation</b>          No data available  <b>Respiratory or skin sensitisation</b>  <b>Germ cell mutagenicity</b>          No data available</p>
<p>Glycerol propoxylated,          esters with          acrylic acid</p>	<p><b>Information on toxicological effects</b>  <b>Acute toxicity</b>          LD50 Oral - Rat - male and female - &gt; 2,000 mg/kg          (OECD Test Guideline 401)          Inhalation: No data available          LD50 Dermal - Rabbit - male and female - &gt; 2,000 mg/kg          (OECD Test Guideline 402)          No data available  <b>Skin corrosion/irritation</b>          Skin - Rabbit          Result: No skin irritation - 4 h          (OECD Test Guideline 404)  <b>Serious eye damage/eye irritation</b>          Eyes - Rabbit          Result: Irritating to eyes. - 24 h          (OECD Test Guideline 405)  <b>Respiratory or skin sensitisation</b>          - Mouse          Result: May cause sensitisation by skin contact.          (OECD Test Guideline 429)  <b>Germ cell mutagenicity</b>          Ames test          S. typhimurium          Result: negative</p>

<b>Skin corrosion/irritation</b>	May cause sensitization by skin contact
<b>Serious eye damage/irritation</b>	No test data available
<b>Respiratory or skin sensitisation</b>	No test data available
<b>Germ cell mutagenicity</b>	No test data available
<b>Carcinogenicity</b>	No test data available
<b>Reproductive toxicity</b>	No test data available
<b>STOT-single exposure</b>	No test data available
<b>STOT-repeat exposure</b>	No test data available
<b>Aspiration hazard</b>	No test data available

## 12. ECOLOGICAL INFORMATION

2-Propenoic acid, monoester with 1,2-Propanediol	<p>Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 3.1 mg/l - 96 h          Toxicity to daphnia and other aquatic invertebrates          static test EC50 - Daphnia magna (Water flea) - 24 mg/l - 48 h          (OECD Test Guideline 202)          Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 6.98 mg/l - 72 h          (OECD Test Guideline 201)</p>
--	---

Trimethylolpropane polyoxyethylene triacrylate	<b>Toxicity</b> No data available
Glycerol propoxylated, esters with acrylic acid	Toxicity to fish static test LC50 - Danio rerio (zebra fish) - 5.74 mg/l - 96 h (OECD Test Guideline 203) Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 91.4 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae Growth inhibition EC50 - Desmodesmus subspicatus (green algae) - 12.2 mg/l - 72 h (OECD Test Guideline 201) Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - > 1,000 mg/l - 3 h (OECD Test Guideline 209)
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	No data available

### 13. DISPOSAL CONSIDERATIONS

**General information** Dispose of in compliance with all local and national regulations.

### 14. TRANSPORT INFORMATION

<b>UN Number</b>	This product is not classified as dangerous for carriage. <b>UN</b>
<b>Proper Shipping Name</b>	This product is not classified as dangerous for carriage.
<b>Transport Hazard class(es)</b>	This product is not classified as dangerous for carriage.
<b>Packing Group (if applicable)</b>	This product is not classified as dangerous for carriage.
<b>Environmental Hazards</b>	This product is not classified as dangerous for carriage.
<b>Special Precautions for the User</b>	This product is not classified as dangerous for carriage.
<b>DOT</b>	This product is not classified as dangerous for carriage.
<b>IMDG</b>	This product is not classified as dangerous for carriage.
<b>IATA</b>	This product is not classified as dangerous for carriage.
<b>Further Information</b>	For this product a chemical safety assessment was not carried out.

## 15. REGULATORY INFORMATION

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Further Information: For this product a chemical safety assessment was not carried out.

## 16. OTHER INFORMATION

**Revision** Revision 4: Corrected page numbering

**Text Hazard Statements from Section 3** Skin Irrit. 2: H315 - Causes skin irritation.  
Eye Irrit. 2: H319 - Causes serious eye irritation.  
P264 - Wash thoroughly after handling.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water/ .  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 - Specific treatment (see on this label).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

**Further information** The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This 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 other process.

**HMIS LABELLING** HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 1, PERSONAL PROTECTION X.