



# MATERIAL SAFETY DATA SHEET

## Photochromic UV Cure Screen Ink

Page 1 of 5  
MSDS136 Revision 2  
Revision Date 10/10/2014

### 1. PRODUCT AND COMPANY IDENTIFICATION

|                                   |  |
|-----------------------------------|--|
| <b>Product name</b>               | Photochromic UV Cure Screen Ink                                |
| <b>Description</b>                | Photochromic pigment dispersed in UV cure screen binder.       |
| <b>Company</b>                    | LCR Hallcrest<br>1911 Pickwick Lane<br>Glenview<br>IL 60026    |
| <b>Telephone</b>                  | +1 847 998 8580  |
| <b>Fax</b>                        | +1 847 998 6866  |
| <b>Emergency telephone number</b> | +1 847 998 8580  |
| <b>Intended use</b>               | Manufacture of color changing UV-sensitive decorative effects. |

### 2. HAZARDS IDENTIFICATION

|                           |  |
|---------------------------|--|
| <b>Appearance</b>         | Viscous liquid   |
| <b>Emergency Overview</b> | Irritant. Sensitizer. Possible risk of impaired fertility.   |
| <b>Eyes</b>               | Moderately irritating to the eyes. The liquid splashed in the eyes may cause irritation and reversible damage.   |
| <b>Skin</b>               | Moderate skin irritation. Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May be harmful if absorbed through skin. |
| <b>Inhalation</b>         | May cause irritation of respiratory tract. Inhalation of high vapor concentration may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.   |
| <b>Ingestion</b>          | Ingestion may cause irritation to mucous membranes.  |

### 3. COMPOSITION / INFORMATION ON INGREDIENTS.

| Component                          | CAS #        | Weight % |
|------------------------------------|--------------|----------|
| Glycol ether acrylate              | Trade Secret | 25-50    |
| Acrylated oligomer                 | Trade Secret | 25-50    |
| Vinyl functional monomer           | Trade Secret | 10-25    |
| Photoinitiator                     | Trade Secret | 5-10     |
| Acrylated oligomer                 | Trade Secret | 0.5-5    |
| Photoinitiator                     | Trade Secret | 0.5-5    |
| Formaldehyde...%<br>(Formaldehyde) | 50-00-0      | 0-0.5    |
| 4,4'-Isopropylidenediphenol        | 80-05-7      | 0.5-3    |

### 4. FIRST AID MEASURES

|                     |   |
|---------------------|---|
| <b>Skin contact</b> | May cause irritation or allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with plenty of soap and water. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist. |
| <b>Eye contact</b>  | May cause irritation or allergic reaction. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention immediately if irritation develops and persists.  |
| <b>Inhalation</b>   | May cause irritation to mucous membranes. Move the exposed person to fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.   |
| <b>Ingestion</b>    | May cause allergic reaction or irritation to mucous membranes. If swallowed DO NOT INDUCE VOMITING. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.   |

### 5. FIRE FIGHTING MEASURES

|                             |   |
|-----------------------------|---|
| <b>Extinguishing media</b>  | Foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Use extinguishing measures that are appropriate to the surrounding fire conditions.  |
| <b>Fire hazards</b>         | Burning produces irritating, toxic and obnoxious fumes.   |
| <b>Protective equipment</b> | Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and / or rupture containers. To avoid thermal decomposition, do not overheat. Fire or intense heat may cause violent rupture of packages. |

## 6. ACCIDENTAL RELEASE MEASURES

|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | Remove all sources of ignition. (Heat, flames and sparks) Ensure adequate ventilation of the working area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. |
| <b>Environmental precautions</b> | Do not allow product to enter drains. Prevent further spillage if safe. If the product contaminates rivers, lakes or drains inform respective authorities.                            |
| <b>Clean up methods</b>          | Contain spillage, soak up with non-combustible absorbent material, (sand, earth, vermiculite) and transfer to a container for disposal according to local / national regulations.     |

## 7. HANDLING AND STORAGE

|                 |  |
|-----------------|--|
| <b>Handling</b> | Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation of the working area. Remove and wash contaminated clothing before re-use. Take notice of labels and material safety data sheets for the working chemicals. Adopt best Manual Handling considerations when handling, carrying and dispensing. Do not take internally. Harmful or fatal if swallowed. |
| <b>Storage</b>  | Keep at temperatures between 9.9°C and 31.9°C. Keep containers tightly closed. Store in correctly labeled containers. Keep out of the reach of children. Keep away from direct sunlight.   |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limit Values

Formaldehyde...%  
 (Formaldehyde)

ACGIH TLV TWA: -  
 Notations: SEN; A2  
 OSHA PEL 8hr TWA  
 mg m3: -  
 ACGIH TLV STEL: C 0.3 ppm  
 OSHA PEL 8hr TWA ppm: -  
 Skin Designation: -

### Engineering Measures

Use only with adequate ventilation.

### Respiratory Protection

Use the indicated respiratory protection is the occupational exposure limit is exceeded and / or in case of product release (dust). Respiratory with a vapor filter.

### Eye protection

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

### Skin Protection

Wear protective gloves / clothing. Solvent resistant apron and boots.

### General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                               |                          |
|-------------------------------|--------------------------|
| Description                   | Viscous liquid           |
| Color                         | Varies according to type |
| Odor                          | Mild sweet acrylic       |
| Boiling Point                 | >149°C / >300°F          |
| Flash Point                   | >93°C / >200°F           |
| Vapor Density                 | Heavier than air         |
| Specific Gravity              | 1.138                    |
| Weight per gallon (lbs / gal) | 9.488                    |
| VOC by weight %               | 0.139                    |
| VOC lbs / gal                 | 0.013                    |

## 10. STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Stability                          | Stable under normal conditions.  |
| Conditions to Avoid                | Temperatures above 93°C. Keep away from direct sunlight  |
| Incompatible Products              | Strong acids. Strong bases. Strong oxidizing agents. Reducing agents.                                      |
| Hazardous Decomposition Products   | Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide. Carbon Monoxide. |
| Possibility of Hazardous Reactions | None under normal processing. Do not store for long periods at temperatures above 93°C.                    |

## 11. TOXICOLOGICAL INFORMATION

| Acute Toxicity   | Component   | LD50 Oral        | LD50 Dermal         |
|------------------|---|------------------|---------------------|
|                  | Glycol ether acrylate   | 4660 uL/kg (Rat) | 2540 uL/kg (Rabbit) |
| Chronic Toxicity | No information available  |                  |                     |
| Sensitization    | May cause sensitization of susceptible persons.   |                  |                     |
| Chronic Effects  | Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. |                  |                     |

## 12. ECOLOGICAL INFORMATION

|             |                                       |
|-------------|---------------------------------------|
| Ecotoxicity | No data is available on this product. |
|-------------|---------------------------------------|

## 13. DISPOSAL CONSIDERATIONS

|                     |   |
|---------------------|---|
| General information | Dispose of contents / containers in compliance with all local and national regulations. |
|---------------------|---|

## 14. TRANSPORT INFORMATION

|                     |  |
|---------------------|--|
| Further information | The product is not classified as dangerous for carriage. |
|---------------------|--|

**15. REGULATORY INFORMATION**

**Inventories**

| Ingredient                      | TSCA | MA | SARA313 | CALPROP6<br>5 | CWA307 | CAA112 | CWA311 | SARA302 | SARA304 |
|---------------------------------|------|----|---------|---------------|--------|--------|--------|---------|---------|
| Formaldehyde...%                | Y    | Y  | Y 0.1   | Y             | N      | Y      | Y      | Y 500   | Y 100   |
| 4,4'-<br>Isopropylidenediphenol | Y    | Y  | Y 1.0   | N             | N      | N      | N      | N       | N       |
| Glycol ether acrylate           | Y    | N  | Y 1.0   | N             | N      | Y      | N      | N       | N       |

**16. OTHER INFORMATION**

**Statement of Hazard**

**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.

**TSCA**

All components are TSCA compliant.

**HMIS LABELLING**

HEALTH: 2, FLAMMABILITY: 1, REACTIVITY: 1, PERSONAL PROTECTION: X