

## SAFETY DATA SHEET Photochromic Dye – Charcoal

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MSDS147 Revision 1  
Revision Date 09/18/2015

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Photochromic Dye – Charcoal		
<b>Additional Names</b>	None		
<b>Description</b>	Charcoal Photochromic Dye		
<b>Intended Use</b>	Manufacture of UV sensitive inks and coatings.		
<b>Company</b>	LCR Hallcrest 1911 Pickwick Lane Glenview IL 60026 USA		
<b>Web</b>	<a href="http://www.hallcrest.com">www.hallcrest.com</a>		
<b>Telephone</b>	+1 847 998 8580		
<b>Fax</b>	+1 847 998 6866		
<b>Email</b>	<a href="mailto:sales@hallcrest.com">sales@hallcrest.com</a>		
<b>Emergency telephone number</b>	Chemtel	Domestic: 800-255-3924	Intl: +01-813-248-0585

### 2. HAZARDS IDENTIFICATION.

**GHS Classification** Hazardous to aquatic environment (chronic): Cat 2, COMBUSTIBLE DUSTS

#### GHS Label Elements



<b>Pictograms</b>	Warning
<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	May form combustible dust concentrations in air. H411: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Precautionary Statement</b>	P273: Avoid release to the environment. P391: Collect spillage. P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients	Classification	Conc.	CAS
Spiro[2H-indole-2,3'-[3H]naph[2,1b][1,4]oxazine],6'-(2,3-dihydro-1H-indol-1-yl)-1,3-dihydro-1,3,3-trimethyl-	Hazardous to the aquatic environment (chronic): Cat 2	<10%	114747-44-3-
Photocol Generic Dye NAEM	None	>90%	Not available
Undefined Impurities	None	<5%	Not available

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>Skin contact</b>	Wash with mild soap and water.
<b>Eye contact</b>	Immediately flush eyes with water for at least 15 minutes. Seek medical attention as needed.
<b>Inhalation</b>	If a large quantity is inhaled remove to fresh air.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Induce vomiting if possible. Seek medical attention as needed.

**Most important symptoms and effect, both acute or delayed.**  
No symptoms known currently.

**Indication of immediate medical attention and special treatment needed, if necessary.**  
No special measures needed.

#### 5. FIRE FIGHTING MEASURES

**Extinguishing Media** Use dry chemical powder., Do not use water jet.

**Specific hazards arising from the chemical** Fine dust clouds may form explosive mixtures with air.

**Special protective equipment for fire-fighters** Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Special protective actions for fire fighters** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Hazardous thermal decomposition products** Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, protective equipment and emergency procedures** Wear suitable personal protective equipment to avoid contact with skin and eyes.

**Environmental Precautions** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and material for containment and cleaning up** Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Avoid generating dust.

#### 7. HANDLING AND STORAGE

**Individual protection measures** Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing. Avoid generating dust.

**Conditions for safe storage, including incompatibilities:** Limit exposure to air and light to preserve product quality. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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

**Suitable Packaging:** Impermeable.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control Parameters

**Appropriate Engineering Controls** Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Individual Protection Measures

**Individual protection measures** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Eye/face protection** showers are close to the workstation location. Safety glasses with side shields

**Skin protection – Hand protection** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Impervious gloves. Nitrile gloves. Butyl rubber gloves. PVC gloves. Viton® gloves.

**Respiratory protection** Wear anti-dust mask.

**Environmental Exposure Controls** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable level.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Solid
<b>Colors</b>	Gray
<b>Odor</b>	Odorless
<b>Odor threshold</b>	N/A
<b>pH</b>	N/A
<b>Melting Point/Freezing Point</b>	237 - 238°C
<b>Initial Boiling Point and Boiling Range</b>	No testing available.
<b>Flash Point</b>	No testing available.
<b>Evaporation rate</b>	No testing available.
<b>Flammability</b>	No testing available.
<b>Upper/Lower Flammability or Explosive Limits</b>	No testing available.
<b>Vapor Pressure</b>	3.595 x10 <sup>-9</sup> Pa (25°C).
<b>Solubility</b>	Immiscible
<b>% Volatiles (by volume)</b>	0% (w/w)

## 10. STABILITY AND REACTIVITY

**Reactivity** No specific test data related to reactivity available for this product or its ingredients

**Chemical Stability** Stable under recommended storage and handling conditions (see Section 7).

**Possibility of hazardous reactions** Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** Limit exposure to air and light to preserve product quality. When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

**Incompatible materials** Reactive or incompatible with the following materials: oxidizing agents, strong alkalis, strong acids.

**Hazardous Decomposition Products** Decomposition products may include the following materials: carbon oxides, nitrogen oxides

11. TOXICOLOGICAL INFORMATION	
<b>Toxicological Information</b>	
Spiro[2H-indole-2,3'-[3H]naph[2,1b][1,4]oxazine],6'-(2,3-dihydro-1H-indol-1-yl)-1,3-dihydro-1,3,3-trimethyl-	Oral rat LD50 -- >2,000mg/kg Dermal LD50 → 2,000mg/kg

**Skin corrosion/irritation** No test data available

**Serious eye damage/irritation** No test data available

**Respiratory or skin sensitization** No test data available

**Germ cell mutagenicity** Negative Ames test using salmonella typhimurium (Data as photochromic powder).

**Carcinogenicity** No test data available

**Reproductive toxicity** No test data available

**STOT-single exposure** No test data available

**STOT-repeat exposure** No test data available

**Aspiration hazard** No test data available

**Likely routes to exposure**

12. ECOLOGICAL INFORMATION	
Spiro[2H-indole-2,3'-[3H]naph[2,1b][1,4]oxazine],6'-(2,3-dihydro-1H-indol-1-yl)-1,3-dihydro-1,3,3-trimethyl-	Acute: EC50 Daphnia Magna >4mg/L Chronic: Toxic to aquatic life with long lasting effects.
<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	
<b>General information</b>	The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.  <b>Disposal should be in accordance with applicable regional, national and local laws and regulations.</b>  <b>Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures</b>

14. TRANSPORT INFORMATION	
<b>UN Number</b>	This product is not classified as dangerous for carriage.
<b>UN 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.

## Further Information

### Further information

The product is not classified as dangerous for carriage.

#### 15. REGULATORY INFORMATION

##### [SARA 302/304](#)

**SARA 304 RQ** : Not applicable.

##### [Composition/information on](#)

[ingredients](#) No products were found.

##### [SARA 311/312](#)

**Classification** : Fire hazard

#### 16. OTHER INFORMATION

<b>Revision</b>	Revision 1 9/18/2015: Initial Revision
<b>Further information</b>	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.
<b>HMIS LABELLING</b>	HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 0 PERSONAL PROTECTION: F