

SAFETY DATA SHEET

Photochromic Dye – Orange 4

UD04/O17

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Photochromic Dye – Orange 4		
Additional Names	None		
Description	Orange Photochromic Dye		
Intended Use	Manufacture of UV sensitive inks and coatings.		
Company	LCR Hallcrest 1911 Pickwick Lane Glenview IL 60026 USA		
Web	www.hallcrest.com		
Telephone	+1 847 998 8580		
Fax	+1 847 998 6866		
Email	sales@hallcrest.com		
Emergency telephone number	Chemtel	Domestic:	800-255-3924
		Intl:	+01-813-248-0585

2. HAZARDS IDENTIFICATION.

GHS Classification COMBUSTIBLE DUSTS

GHS Label Elements

Pictograms

Signal Word Warning

Hazard Statements May form combustible dust concentrations in air.

Precautionary Statement

3. COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients	Classification	Conc.	CAS
Undefined Impurities	None	<5%	Not available
3(4-methoxy)phenyl,3-[2,1-b]pyran	None	>95%	Not available

4. FIRST AID MEASURES

Description of first aid measures

Skin contact Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. continue rinsing.

Inhalation Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Ingestion If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms and effect, both acute or delayed.

Skin contact No known significant hazards.

Eye contact Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	Adverse symptoms may include the following: irritation, redness
Inhalation	Adverse symptoms may include the following: respiratory tract irritation
Indication of immediate medical attention and special treatment needed, if necessary.	
Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.
Protection of first aiders	No action shall be taken involving any personnel risk or without suitable training.

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	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.
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.

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
Conditions for safe storage, including incompatibilities:	Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labeled containers.
Specific end uses:	Keep away from sources of ignition – No smoking
Suitable Packaging:	Plastic Containers

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

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.

Skin protection – Hand protection

Impervious gloves. Nitrile gloves. Butyl rubber gloves. PVC gloves. Viton® gloves.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

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

Appearance Solid
Colors Yellowish
Odor Odorless
Odor threshold N/A
pH N/A
Melting Point/Freezing Point No testing available
Initial Boiling Point and Boiling Range No testing available.
Flash Point No testing available.
Evaporation rate No testing available.
Flammability No testing available.
Upper/Lower Flammability or Explosive Limits No testing available.
Vapor Pressure No testing available.
Solubility Insoluble in water
% Volatiles (by volume) 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

Toxicological Information

Photosol Generic Dye OECD 471 Bacterial Reverse Mutation Test: Negative.
NAEM

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 No test data available
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

Persistence and degradability No data available
Bioaccumulative potential No data available
Mobility in soil No data available
Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

General information 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.
Disposal should be in accordance with applicable regional, national and local laws and regulations.
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

14. TRANSPORT INFORMATION

UN Number This product is not classified as dangerous for carriage.
UN Proper Shipping Name This product is not classified as dangerous for carriage.
Transport Hazard class(es) This product is not classified as dangerous for carriage.
Packing Group (if applicable) This product is not classified as dangerous for carriage.
Environmental Hazards This product is not classified as dangerous for carriage.
Special Precautions for the User This product is not classified as dangerous for carriage.
DOT This product is not classified as dangerous for carriage.
IMDG This product is not classified as dangerous for carriage.
IATA 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

TSCA Inventory Status – Not Listed
 TSCA 12(b) export Notification – Not Listed

16. OTHER INFORMATION

Revision Revision 3: Major revision to include the requirements of the HCS/HazCom 2012 Final Rule.
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 1, FLAMMABILITY 1, PHYSICAL HAZARD 0, PERSONAL PROTECTION: F