

SAFETY DATA SHEET Photochromic Dye – Orange #2 UD01/O2

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MSDS151 Revision 2
Revision Date 10/28/2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Photochromic Dye – Orange #2 UD01/O2
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

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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
Photochromic Dye	None	>95%	Not available
Undefined Impurities	None	<5%	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:	Do not store above the following temperature: 30°C (86°F). Store in accordance with local regulations. Store in a segregated and approved area. 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:	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

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.

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	Various
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	10g/m ³
Vapor Pressure	No testing available.
Solubility	Immiscible
% 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

Photochromic Dye	OECD 471 Bacterial Reverse Mutation Test: Negative.
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

[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

Revision 10/09/2015 Revision 1: Initial Revision
10/28/2016 Revision 2: Grammatical Changes

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 0, PHYSICAL HAZARD 0