

SAFETY DATA SHEET Photochromic Powder

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MSDS084 Revision 3
Revision Date 06/10/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Photochromic Powder		
Additional Names	None		
Description	Microencapsulated Photochromic Dye		
Intended Use	Manufacture of photochromic 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	Skin Sens. 1: H317 - May cause an allergic skin reaction. Eye Dam. 1: H318 - Causes serious eye damage. Carcinogen 1B: H350 – May cause cancer. Repro. Tox.: H361 – Suspected of damaging fertility or the unborn child
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GHS Label Elements Pictograms



Signal Word	Danger
Hazard Statements	Skin Sens. 1: H317 - May cause an allergic skin reaction. Eye Dam. 1: H318 - Causes serious eye damage. Carcinogen 1B: H350 – May cause cancer Repro. Tox.: H361 – Suspected of damaging fertility or the unborn child

Precautionary Statement

P201 – Obtain special instructions before use
 P202: Do not handle until all safety precautions have been read and understood.
 P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P281 – Use personal protective equipment as required.
 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.
 P308 + P313: IF exposed or concerned: Get medical advice/attention.
 P310: Immediately call a POISON CENTER/doctor
 P321: Specific treatment (see ... on this label)
 P333+P313 - If skin irritation or a rash occurs: Get medical advice/attention.
 P363 - Wash contaminated clothing before reuse.
 P405 - Store locked up.
 P501 – Dispose of contents/container according to appropriate regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS.			
Hazardous ingredients	Classification	Conc.	CAS
Formaldehyde	Flam. Liq. 4; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Muta. 2; Carc. 1A; Quatic Acute 3; H227, H301+H311_H331, H314, H317, H318, H341, H350, H402	<0.5%	50-0-0
4,4'-Isopropylidenediphenol	Repr. 2: H361f; STOT SE 3: H335; Eye Dam. 1: H318; Skin Sens. 1: H317;	1-5%	80-05-7

4. FIRST AID MEASURES

Description of first aid measures

Skin contact Wash exposed areas with soap and water. Consult a physician if irritation persists.
Eye contact Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. continue rinsing.
Inhalation Move the exposed person to fresh air. Seek medical attention.
Ingestion If victim is conscious, give liquids and induce vomiting.

Most important symptoms and effect, both acute or delayed.

Skin contact Irritating to the skin.
Eye contact Irritating to the eyes. Excess blinking and tear production marked excess redness and swelling of the conjunctiva.
Inhalation Irritating to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.
Ingestion Ingestion may cause nausea, abdominal discomfort, and vomiting.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use as appropriate: carbon dioxide (CO2), dry chemical, foam, water spray.

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

Special protective actions for fire-fighters Use self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, protective equipment and emergency procedures Ensure adequate ventilation of the working area. Wear eye and skin protection.

Environmental Precautions Do not allow product to enter drains. Avoid discharge to natural waters.

Methods and material for containment and cleaning up Absorb with inert, absorbent material. Transfer to suitable, labeled containers for disposal.

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 labelled containers.
Specific end uses:	Keep away from sources of ignition – No smoking
Suitable Packaging:	Plastic Containers
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

Exposure Limits

Formaldehyde	ACGIH TLV TWA: - Notations: SEN; A2	ACGIH TLV STEL: C 0.3ppm
4,4'-Isopropylidenediphenol	OSHA PEL 8hr TWA Mg M3: - WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m3 total inhalable dust:- WEL 8-hr limit mg/m3 total respirable dust:-	OSHA PEL 8hr TWA ppm: - Skin Designator: - WEL 8-hr limit mg/m3: 10 WEL 15 min limit mg/m3: - WEL 15 min limit mg/m3 total inhalable dust:- WEL 15 min limit mg/m3 total respirable dust:-

Control Parameters

Appropriate Engineering Controls	Ensure adequate ventilation of the working area.
Individual Protection Measures	
Individual protection measures	Wear chemical protective clothing.
Eye/face protection	Approved safety goggles
Skin protection – Hand protection	Impervious (Neoprene) Gloves
Respiratory protection	Wear a MSHA/NIOSH approved (or equivalent) half-mask air purifying respirator.
Environmental Exposure Controls	Appropriate local exhaust ventilation is required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Colors	Various
Odor	No characteristic odor
Odor threshold	N/A
pH	N/A
Melting Point/Freezing Point	Starts at 250°C
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	Immiscible
% Volatiles (by volume)	N/M – tested according to EPA test method 24.

10. STABILITY AND REACTIVITY

Reactivity	Avoid sparks, flames, heat and sources of ignition.
Chemical Stability	Stable under normal conditions.

Possibility of hazardous reactions Burning can product the following combustion products: N/M
Conditions to avoid No Significant Hazard.
Incompatible materials Strong oxidizing agents.
Hazardous Decomposition Products Cannot Occur

11. TOXICOLOGICAL INFORMATION		
Toxicological Information		
Formaldehyde	Oral Mouse LD50: 42mg/kg Inhalation Rat LD50: 250ppm	Skin Rabbit LD50: 270 mg/kg
4,4'-Isopropylidenediphenol	Oral Rat LD50: 4240 mg/kg Dermal Rabbit LD50: 3 mL/kg	Oral Mouse LD50: 2500 mg/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	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		
Toxicity	Formaldehyde	Daphnia 1 EC50 – 54mg/l
	4,4'-Isopropylidenediphenol	Green algae EC50/96h: 3.1 Fathead minnows LC50/96h: 4.6 Daphnia LC50/48h: 10.2
Persistence and degradability	No data available	
Bioaccumulative potential	No data available	
Mobility in soil	No data available	
Other adverse effects	Harmful to aquatic organisms	

13. DISPOSAL CONSIDERATIONS	
General information	Dispose of in compliance with all local and national regulations.

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									
Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Formaldehyde	Y	Y	Y0.1	Y	N	Y	Y	Y 500	Y 100
4,4'-Isopropylidenediphenol	Y	Y	Y1.0	N	N	N	N	N	N

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: A.