



MATERIAL SAFETY DATA SHEET

Thermochromic UV Cure Flexo Ink

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MSDS112 Revision 2
Revision Date 10/10/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Thermochromic UV Cure Flexo Ink
Description Thermochromic pigment dispersed in UV curing resin.
Company LCR Hallcrest
1911 Pickwick Lane
Glenview
IL 60026
Telephone +1 847 998 8580
Fax +1 847 998 6866
Emergency telephone number +1 847 998 8580
Intended use Manufacture of temperature indicating products and decorative effects.

2. HAZARDS IDENTIFICATION

Color Various colors
Odor Characteristic
State Liquid
Statement of Hazard Combustible liquid and vapor
May cause eye irritation
May cause allergic skin reaction
(Possible) reproductive hazard (contains material that) may cause adverse reproductive effects (in females) (in males) based on animal data.
Main Hazards Irritation to eyes and skin. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients

	Conc.	CAS#
Formaldehyde...% (Formaldehyde)	0-0.5%	50-00-0
4,4'-Isopropylidenediphenol	1-10%	80-05-7

UV Curing resin	20-30%	
HDMAP	1-10%	7473-98-5
Ethoxylated (3)	1-10%	28961-43-5
Trimethylolpropane		
Triacrylate		

4. FIRST AID MEASURES

Skin contact	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Eye contact	Irritating to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Inhalation	Irritating to the respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention.
Ingestion	Ingestion may cause nausea and vomiting. DO NOT INDUCE VOMITING. Seek medical attention if irritation or symptoms persist.

5. FIRE FIGHTING MEASURES

Extinguishing media	Carbon oxides.
Fire hazards	Burning produces irritating, toxic and obnoxious fumes.
Protective equipment	Wear suitable respiratory equipment when necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation of the working area. Wear suitable protective equipment.
Environmental precautions	Do not allow product to enter drains. Prevent further spillage if safe.
Clean up methods	Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labeled containers for disposal. Clean spillage area thoroughly with plenty of water.

7. HANDLING AND STORAGE

Handling	Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing.
Storage	Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labeled containers.

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: -

Appropriate engineering controls	Ensure adequate ventilation of the working area.
Individual protection measures	Wear chemical protective clothing.
Eye / face protection	Approved safety goggles.
Skin protection – Hand protection	Chemical resistant gloves (PVC)
Respiratory protection	Wear: Suitable respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description	Liquid
Color	Various colors
Odor	Characteristic
Flash point	93°C
Water Solubility	Insoluble

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
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11. TOXICOLOGICAL INFORMATION

HDMAP	Dermal Rat LD50: 6929 mg/kg Oral Rat LD50: 1694 mg/kg
Ethoxylated (3) Trimethylolpropane Triacrylate	Dermal Rabbit LD50: >13 gm/kg
Formaldehyde...%	Inhalation Rat LC50/2H h: 250 ppm Oral Rat LD50: 500 mg/kg Inhalation Mouse LC50/2H h: 505 mg/m3 Oral Mouse LD50: 500 mg/kg Dermal Rabbit LD50: 270 mg/kg
Acute toxicity	May cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

Further information	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
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13. DISPOSAL CONSIDERATIONS

General information	Dispose of in compliance with all local and national regulations.
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14. TRANSPORT INFORMATION

Further information	The product is not classified as dangerous for carriage.
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15. REGULATORY INFORMATION

Inventories

Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Formaldehyde...%	Y	Y	Y 0.1	Y	N	Y	Y	Y 500	Y 100
HDMAP	Y	N	N	N	N	N	N	N	N
Ethoxylated (3)	Y	N	N	N	N	N	N	N	N
Trimethylolpropane									
Triacrylated									
4,4'-Isopropylidenediphenol	Y	Y	Y 1.0	N	N	N	N	N	N

16. OTHER INFORMATION

Statement of Hazard

COMBUSTIBLE LIQUID AND VAPOR
 MAY CAUSE EYE IRRITATION
 MAY CAUSE ALLERGIC SKIN REACTION
 (Possible) reproductive hazard (contains material that) may cause adverse reproductive effects (in females) (in males) based on animal data.

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 1, FLAMMABILITY 1, PHYSICAL HAZARD 0 PERSONAL PROTECTION: B .