

SAFETY DATA SHEET

according to Federal Register

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Thermochromic Water Based Screen Textile Ink Bis A Free

Revision MSDS163 rev 2

Revision date 2017-10-25

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	Thermochromic Water Based Screen Textile Ink Bis A Free
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Product Use	[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen);
Description	Temperature sensitive, color change ink.

1.3. Details of the supplier of the safety data sheet

Company	LCR Hallcrest
Address	1911, Pickwick Lane, Glenview, IL 60026, USA
Web	www.hallcrest.com
Telephone	+1 847 998 8580
Fax	+1 847 998 8051
Email	sales@hallcrest.com

Intended use


Manufacture of temperature-indicating products and temperature-sensitive decorative effects.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	Skin Sens. 1: H317; Carc. 1B: H350;
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2.2. Label elements

Hazard pictograms	
Signal Word	Danger
Hazard Statement	Skin Sens. 1: H317 - May cause an allergic skin reaction. Carc. 1B: H350 - May cause cancer.
Precautionary Statement: Prevention	P202 - Do not handle until all safety precautions have been read and understood. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P308+P313 - IF exposed or concerned: Get medical advice/attention. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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2.3. Other hazards

Other hazards	No data is available on this product.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Color developer					1 - 10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
Formaldehyde...%	605-001-00-5	50-00-0	200-001-8		0 - 0.5%	Carc. 1B: H350; Muta. 2: H341; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; Skin Corr. 1B: H314; Skin Sens. 1: H317;

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. Seek medical attention.
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	Irritant, moderate respiratory. May cause cancer.
Eye contact	Irritating to eyes.
Skin contact	Avoid contact with skin. Irritating to skin.
Ingestion	Ingestion may cause nausea and vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Inhalation	If breathing is difficult give oxygen.
Eye contact	Seek medical attention if irritation or symptoms persist.
Skin contact	May cause sensitization by skin contact.
Ingestion	May cause irritation to mucous membranes.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Carbon oxides.
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5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

	Wear suitable respiratory equipment when necessary.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Ensure adequate ventilation of the working area. Wear suitable protective equipment.
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6.2. Environmental precautions

	Do not allow product to enter drains. Prevent further spillage if safe.
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6.3. Methods and material for containment and cleaning up

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6.3. Methods and material for containment and cleaning up

Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limit Values

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: -
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8.2. Exposure controls



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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

State	Viscous liquid.
Color	Various colors according to type.
Odor	Characteristic
Odor threshold	No data available
pH	< 7
Melting point	No data available
Freezing Point	No data available
Boiling point	100
Flash point	Not applicable.
Evaporation rate	No data available
Flammability limits	N/A
Vapor pressure	No data available
Vapor density	No data available
Relative density	No data available
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Explosive properties	No data available
Solubility	Miscible in water

Color

Various colors according to type.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No Significant Hazard.

10.4. Conditions to avoid

Protect from frost.

10.5. Incompatible materials

Alkalis.

10.6. Hazardous decomposition products

Formaldehyde may be generated and other harmful fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	May cause sensitization by skin contact.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause eye irritation.
Respiratory or skin sensitisation	May cause sensitization by skin contact.
Germ cell mutagenicity	No data is available on this product.
Carcinogenicity	Classified as Carcinogen 1B - contains formaldehyde.
Reproductive toxicity	No data is available on this product.
STOT-single exposure	No data is available on this product.

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11.1. Information on toxicological effects

STOT-repeated exposure	No data is available on this product.
Aspiration hazard	No data is available on this product.
Repeated or prolonged exposure	No data is available on this product.

11.1.2. Mixtures

	No data is available on this product.
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11.1.3. Hazard Information

	Refer to section 2.2.
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11.1.4. Toxicological information

Color developer	Oral Rat LD50: 3400 mg/kg	
Formaldehyde...%	Inhalation Rat LC50/2H h: 250 ppm	Oral Rat LD50: 500 mg/kg
	Oral Mouse LD50: 500 mg/kg	Inhalation Mouse LC50/2H h: 505 mg/m3
	Dermal Rabbit LD50: 270 mg/kg	

11.1.5. Hazard Class

	Refer to section 2.2.
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SECTION 12: Ecological information

12.2. Persistence and degradability

	No data is available on this product.
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12.3. Bioaccumulative potential

	No data is available on this product.
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Partition coefficient

	Thermostar Water Based Screen Textile Ink Bis A Free	No data available	Color developer	No data available
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12.4. Mobility in soil

	No data is available on this product.
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12.5. Results of PBT and vPvB assessment

	No data is available on this product.
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12.6. Other adverse effects

	No data is available on this product.
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Further information

	No data is available on this product.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

	Absorb with inert, absorbent material.
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General information

	Dispose of in compliance with all local and national regulations.
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Disposal methods

	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
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SECTION 14: Transport information

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14.1. UN number

	The product is not classified as dangerous for carriage.
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14.2. UN proper shipping name

	The product is not classified as dangerous for carriage.
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14.3. Transport hazard class(es)

	The product is not classified as dangerous for carriage.
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14.4. Packing group

	The product is not classified as dangerous for carriage.
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14.5. Environmental hazards

	The product is not classified as dangerous for carriage.
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14.6. Special precautions for user

	The product is not classified as dangerous for carriage.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

	The product is not classified as dangerous for carriage.
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SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations	This safety data sheet complies with Regulation (EC) 2015/830.
	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

15.2. Chemical safety assessment

	For this product a chemical safety assessment was not carried out.
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Inventories

Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Formaldehyde...% (Formaldehyde)	Y	Y	Y 0.1	Y	N	Y	Y	Y 500	Y 100

SECTION 16: Other information

Other information

Revision	This document differs from the previous version in the following areas: . 1 - Description. . 1 - Intended use. . 2 - 2.1. Classification of the substance or mixture. . 2 - 2.1.2. Classification - GHS. . 2 - Hazard pictograms. . 2 - Signal Word. . 2 - Precautionary Statement: Prevention. . 2 - Precautionary Statement: Response. . 2 - Precautionary Statement: Storage. . 2 - Precautionary Statement: Disposal. . 4 - Skin contact. . 4 - Eye contact. . 4 - Inhalation. . 4 - Ingestion. . 4 - Inhalation. . 4 - Eye contact. . 9 - 9.1. Information on basic physical and chemical properties (Color). . 9 - 9.1. Information on basic physical and chemical properties (PH). . 9 - 9.1. Information on basic physical and chemical properties (Melting point). . 9 - 9.1. Information on basic physical and chemical properties (Flash point). . 9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature). . 9 - 9.1. Information on basic physical and chemical properties (Explosive properties). . 9 - 9.1. Information on basic physical and chemical properties (Vapor pressure). . 9 - 9.1. Information on basic physical and chemical properties (Relative density). . 9 - 9.1. Information on basic physical and chemical properties (Vapor density). . 9 - 9.1. Information on basic physical and chemical properties (Evaporation rate). . 9 - 9.1. Information on basic physical and chemical properties (Freezing Point). . 9 - 9.1. Information on basic physical
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Other information

Text of Hazard Statements in Section 3	<p>and chemical properties (Fat Solubility). . 9 - 9.1. Information on basic physical and chemical properties (Odor threshold). . 9 - 9.2. Other information (Partition coefficient). . 12 - 12.1. Toxicity. . 15 - Labelling. . 15 - Risk phrases. . 15 - Safety phrases. . 16 - HMIS LABELLING. .</p> <p>Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory irritation. Acute Tox. 3: H301 - Toxic if swallowed. Acute Tox. 3: H311 - Toxic in contact with skin. Skin Corr. 1B: H314 - Causes severe skin burns and eye damage. Skin Sens. 1: H317 - May cause an allergic skin reaction. Acute Tox. 3: H331 - Toxic if inhaled. Muta. 2: H341 - Suspected of causing genetic defects . Carc. 1B: H350 - May cause cancer . Carc. 2: H351 - Suspected of causing cancer .</p>
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Further information

HMIS LABELLING	<p>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.</p> <p>* CHRONIC HAZARD. HEALTH 1,. FLAMMABILITY 0,. PHYSICAL HAZARD 0.</p>
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