

## SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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### PHOTOSTAR REVERSIBLE PHOTOCHROMIC WATER BASED TEXTILE SCREEN

Revision 1

Revision date 2015-05-20

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

##### 1.1. Product identifier

**Product name** PHOTOSTAR REVERSIBLE PHOTOCHROMIC WATER BASED TEXTILE SCREEN

##### 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); [SU7] Printing and reproduction of recorded media;

**Description** Ink which changes colour, reversibly, on exposure to UV light.

##### 1.3. Details of the supplier of the safety data sheet

**Company** Thermographic Measurements Ltd

**Address**  
Riverside Buildings  
Dock Road  
Connah's Quay  
Flintshire CH5 4DS  
United Kingdom

**Web** www.t-m-c.com

**Telephone** +44 (0)1244 818348

**Fax** +44 (0)1244 818502

**Email** sales@t-m-c.com

**Email address of the competent person** chrisc@t-m-com

##### 1.4. Emergency telephone number

**Emergency telephone number** +44 (0)1244 818348

Hours 09.00 to 17.00

##### Intended use

Manufacture UV light triggered colour changing printed items.

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

**2.1.1. Classification - 1999/45/EC**  
Xi; R43  
Symbols: Xi: Irritant.

**Main hazards** May cause sensitisation by skin contact.

**2.1.2. Classification - EC 1272/2008**  
Skin Sens. 1: H317; Eye Irrit. 2: H319;

##### 2.2. Label elements

##### Hazard pictograms



##### Signal Word

Warning

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## 2.2. Label elements

<b>Hazard Statement</b>	Skin Sens. 1: H317 - May cause an allergic skin reaction. Eye Irrit. 2: H319 - Causes serious eye irritation.
<b>Precautionary Statement: Prevention</b>	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
<b>Precautionary Statement: Response</b>	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. P321 - Specific treatment (see on this label). P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.
<b>Precautionary Statement: Disposal</b>	P501 - Dispose of contents/container to

## 2.3. Other hazards

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

### 3.2. Mixtures

#### 67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
4,4'-Isopropylidenediphenol	604-030-00-0	80-05-7	201-245-8		1 - 10%	Repr. Cat. 3; R62 Xi; R37-41 R43 R52	
Formaldehyde...%	605-001-00-5	50-00-0	200-001-8		0 - 0.5%	Carc. Cat. 3; R40 T; R23/24/25 C; R34 R43	

#### EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
4,4'-Isopropylidenediphenol	604-030-00-0	80-05-7	201-245-8		1 - 10%	Repr. 2: H361f; STOT SE 3: H335; Eye Dam. 1: H318; Skin Sens. 1: H317;	
Formaldehyde...%	605-001-00-5	50-00-0	200-001-8		0 - 0.5%	Carc. 2: H351; 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

<b>Inhalation</b>	Irritating to 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.
<b>Eye contact</b>	Irritating to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
<b>Skin contact</b>	Irritating to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
<b>Ingestion</b>	Ingestion may cause nausea and vomiting. Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

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

<b>Inhalation</b>	Irritant, moderate respiratory.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Avoid contact with skin. Irritating to skin.
<b>Ingestion</b>	Ingestion may cause nausea and vomiting.

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

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## 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 sensitisation by skin contact.

## 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

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

	For disposal see section 13.
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## 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.
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### 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.
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### 7.3. Specific end use(s)

	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Exposure Limit Values

4,4'-Isopropylidenediphenol	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m3: 10
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m3: -
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -
	Formaldehyde...%	WEL 8-hr limit ppm: 2
	WEL 15 min limit ppm: 2	WEL 15 min limit mg/m3: 2.5
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -

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## 8.2. Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Wear chemical protective clothing.
Eye / face protection	Approved safety goggles.
Skin protection - Handprotection	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

Appearance	Viscous liquid.
Odour	Characteristic
Initial boiling point	100
Flash point	Not applicable.
Flammability (solid, gas)	N/A
Explosive properties	Not applicable.
Solubility	Miscible in water

### Colour

	Various colours according to type.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

	No data available.
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### 10.2. Chemical stability

	Stable under normal conditions.
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### 10.3. Possibility of hazardous reactions

	No Significant Hazard.
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### 10.4. Conditions to avoid

	Protect from frost.
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### 10.5. Incompatible materials

	Alkalis.
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### 10.6. Hazardous decomposition products

	Formaldehyde may be generated and other harmful fumes.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	May cause sensitisation by skin contact.
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#### 11.1.4. Toxicological Information

4,4'-Isopropylidenediphenol	Oral Rat LD50: 4240 mg/kg Dermal Rabbit LD50: 3 mL/kg	Oral Mouse LD50: 2500 mg/kg
Formaldehyde...%	Inhalation Rat LC50/2H h: 250 ppm Oral Mouse LD50: 500 mg/kg Dermal Rabbit LD50: 270 mg/kg	Oral Rat LD50: 500 mg/kg Inhalation Mouse LC50/2H h: 505 mg/m3

## SECTION 12: Ecological information

### 12.1. Toxicity

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## 12.1. Toxicity

4,4'-Isopropylidenediphenol	Green algae EC50/96h: 3.1 Fathead minnows LC50/96h: 4.6	Daphnia LC50/48h: 10.2
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## 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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## 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

### ADR/RID

	The product is not classified as dangerous for carriage.
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### IMDG

	The product is not classified as dangerous for carriage.
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### IATA

	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 datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 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.
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### 15.2. Chemical safety assessment

	For this product a chemical safety assessment was not carried out.
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## SECTION 16: Other information

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## Other information

<b>Revision</b>	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> <li>1 - Description.</li> <li>1 - Intended use.</li> <li>1 - Product Use.</li> <li>2 - 2.1.2. Classification - EC 1272/2008.</li> <li>2 - Signal Word.</li> <li>2 - Precautionary Statement: Prevention.</li> <li>2 - Precautionary Statement: Response.</li> <li>2 - Precautionary Statement: Disposal.</li> <li>9 - 9.1. Information on basic physical and chemical properties (Initial boiling point).</li> <li>9 - 9.1. Information on basic physical and chemical properties (Flash point).</li> <li>9 - 9.1. Information on basic physical and chemical properties (Explosive properties).</li> <li>9 - 9.1. Information on basic physical and chemical properties (Solubility).</li> <li>12 - 12.1. Toxicity.</li> </ul>
<b>Text of risk phrases in Section 3</b>	<p>R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.</p> <p>R34 - Causes burns.</p> <p>R37 - Irritating to respiratory system.</p> <p>R40 - Limited evidence of a carcinogenic effect.</p> <p>R41 - Risk of serious damage to eyes.</p> <p>R43 - May cause sensitisation by skin contact.</p> <p>R52 - Harmful to aquatic organisms.</p> <p>R62 - Possible risk of impaired fertility.</p>
<b>Text of Hazard Statements in Section 3</b>	<p>Skin Sens. 1: H317 - May cause an allergic skin reaction.</p> <p>Eye Dam. 1: H318 - Causes serious eye damage.</p> <p>STOT SE 3: H335 - May cause respiratory irritation.</p> <p>Repr. 2: H361f - Suspected of damaging fertility.</p> <p>Acute Tox. 3: H301 - Toxic if swallowed.</p> <p>Acute Tox. 3: H311 - Toxic in contact with skin.</p> <p>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.</p> <p>Acute Tox. 3: H331 - Toxic if inhaled.</p> <p>Carc. 2: H351 - Suspected of causing cancer .</p>
<b>Further information</b>	
<b>HMIS LABELLING</b>	<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>HEALTH 1, FLAMMABILITY 0, PHYSICAL HAZARD 0.</p>