

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

Page 1/5

Thermostar Bis A Free UV Screen Ink

Revision 0

Revision date 2015-03-27

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

1.1. Product identifier

Product name Thermostar Bis A Free UV Screen Ink

1.2. Relevant identified uses of the substance or mixture and uses advised against

Description Thermochromic pigment dispersion in UV curing resin.

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 67/548/EEC	Xi; R36/37/38 R52/53 Symbols: Xi: Irritant.
Main hazards	Irritating to eyes, respiratory system and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
2.1.2. Classification - EC 1272/2008	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Chronic 3: H412;

2.2. Label elements

Hazard pictograms



Signal Word

Warning

Hazard Statement

Skin Irrit. 2: H315 - Causes skin irritation.

Thermostar Bis A Free UV Screen Ink

Revision 0

Revision date 2015-03-27

2.2. Label elements

Precautionary Statement: Prevention	Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory irritation. Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTER or doctor/physician if you feel unwell. P321 - Specific treatment (see on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.
Precautionary Statement: Storage	P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to

SECTION 3: Composition/information on ingredients

3.1. Substances

67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Acrylate					30 - 40%	Xi; R36/37/38
Colour developer					1 - 10%	Xi; R36/37/38
Octylacrylate		2499-59-4			1 - 10%	Xi; R36/37/38 N; R51/53
Decacrylate		2156-96-9			1 - 10%	Xi; R36/37/38 N; R51/53
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	606-047-00-9	119313-12-1	404-360-3		1 - 10%	N; R50/53
2-ethylhexyl 4-(dimethylamino)benzoate		21245-02-3			1 - 10%	R53

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Acrylate					30 - 40%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
Colour developer					1 - 10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
Octylacrylate		2499-59-4			1 - 10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Chronic 2: H411;
Decacrylate		2156-96-9			1 - 10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Chronic 2: H411;
2-Benzyl-2-dimethylamino-4-morpholinobutyrophenone	606-047-00-9	119313-12-1	404-360-3		1 - 10%	Aquatic Acute 1: H400; Aquatic Chronic 1: H410;
2-ethylhexyl 4-(dimethylamino)benzoate		21245-02-3			1 - 10%	Aquatic Chronic 4: H413;

SECTION 4: First aid measures

4.1. Description of first aid measures

Thermostar Bis A Free UV Screen Ink

Revision 0

Revision date 2015-03-27

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	Irritating to respiratory system. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system.
Eye contact	Irritating to eyes.
Skin contact	Irritating to skin.
Ingestion	Ingestion may cause nausea and vomiting.

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

Inhalation	Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Seek medical attention if irritation or symptoms persist.
Eye contact	Irritating to eyes. Seek medical attention if irritation or symptoms persist.
Skin contact	Irritating to skin. Seek medical attention if irritation or symptoms persist.
Ingestion	Keep the affected person warm and at rest. Seek medical attention if irritation or symptoms persist.

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)

	Apply a barrier cream before handling the product. Avoid contact with eyes. Avoid contact with
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Thermostar Bis A Free UV Screen Ink

Revision 0

Revision date 2015-03-27

7.3. Specific end use(s)

skin.

SECTION 8: Exposure controls/personal protection

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

State	Paste
Colour	Various colours according to type.
Odour	Characteristic
Solubility	Immiscible in water

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No Significant Hazard.

10.4. Conditions to avoid

No Significant Hazard.

10.5. Incompatible materials

No Significant Hazard.

10.6. Hazardous decomposition products

Burning produces obnoxious and irritating fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity May cause sensitisation by skin contact.

11.1.4. Toxicological Information

Colour developer	Oral Rat LD50: 3400 mg/kg	
Decacrylate	Oral Rat LD50: 6460 mg/kg	Dermal Rabbit LD50: 6300 uL/kg

SECTION 12: Ecological information

Further information

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

General information

Dispose of in compliance with all local and national regulations.

Thermostar Bis A Free UV Screen Ink

Revision 0

Revision date 2015-03-27

SECTION 14: Transport information

Further information

The product is not classified as dangerous for carriage.

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.
COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on 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.

Further information

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

SECTION 16: Other information

Other information

Text of risk phrases in Section 3

R36/37/38 - Irritating to eyes, respiratory system and skin.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53 - May cause long-term adverse effects in the aquatic environment.

Text of Hazard Statements in Section 3

Skin Irrit. 2: H315 - Causes skin irritation.
Eye Irrit. 2: H319 - Causes serious eye irritation.
STOT SE 3: H335 - May cause respiratory irritation.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Aquatic Chronic 4: H413 - May cause long lasting harmful effects to aquatic life.

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

All components are TSCA compliant.

HEALTH 1, FLAMMABILITY 0, PERSONAL PROTECTION : C. PHYSICAL HAZARD 0.