

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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Water Based Hydrochromic Screen Ink

Revision 1

Revision date 2018-01-30

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

1.1. Product identifier

Product name	Water Based Hydrochromic Screen Ink
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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
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Intended use

Manufacture of printed water sensitive articles.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - EC 1272/2008	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Chronic 2: H411;
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2.2. Label elements

Hazard pictograms



Signal Word

Warning

Hazard Statement

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.

Precautionary Statement: Prevention

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.

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2.2. Label elements

Precautionary Statement: Response	<p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302+P352 - IF ON SKIN: Wash with plenty of water/ .</p> <p>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 - Call a POISON CENTER/doctor/ /if you feel unwell.</p> <p>P321 - Specific treatment (see on this label).</p> <p>P332+P313 - If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313 - If eye irritation persists: Get medical advice/attention.</p> <p>P391 - Collect spillage.</p>
Precautionary Statement: Storage	<p>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 - Store locked up.</p>
Precautionary Statement: Disposal	<p>P501 - Dispose of contents/container to approved waste disposal plant or contractor.</p>

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
HYDROCHROMIC PIGMENT					10 - 20%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
HYDROCHROMIC PIGMENT B					10 - 20%	Acute Tox. 4: H302; Eye Irrit. 2: H319; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;

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	May cause irritation to respiratory system.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin.
Ingestion	Seek medical attention.

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

Inhalation	Seek medical attention if irritation or symptoms persist.
Eye contact	Seek medical attention if irritation or symptoms persist.
Skin contact	Seek medical attention if irritation or symptoms persist.
Ingestion	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)

	No precautions required to be mentioned.
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SECTION 8: Exposure controls/personal protection

8.2. Exposure controls

8.2.1. Appropriate engineering controls

	Ensure adequate ventilation of the working area.
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8.2.2. Individual protection measures

	Wear chemical protective clothing.
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Eye / face protection

	Approved safety goggles.
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Skin protection - Handprotection

	Chemical resistant gloves (PVC).
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Respiratory protection

	Wear: Suitable respiratory equipment.
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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

Appearance	Liquid
Colour	Various colours according to type.
Odour	Strong
pH	3 - 3.5
Melting point	Not applicable.
Freezing Point	No data available
Initial boiling point	No data available
Flash point	Not applicable.
Evaporation rate	No data available
Vapour density	No data available
Fat Solubility	Not applicable.
Explosive properties	No data available
Solubility	Miscible in water

9.2. Other information

Specific gravity	1.16
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SECTION 10: Stability and reactivity

10.1. Reactivity

	No Significant Hazard.
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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

	No Significant Hazard.
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10.5. Incompatible materials

	Keep away from food, drink and animal feedingstuffs.
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10.6. Hazardous decomposition products

	Burning produces obnoxious and irritating fumes.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data is available on this product.
Skin corrosion/irritation	Irritating to skin.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	No data is available on this product.
Germ cell mutagenicity	No mutagenic effects reported.
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No data is available on this product.
STOT-single exposure	No data is available on this product.
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.

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11.1.2. Mixtures

No data is available on this product.

11.1.3. Hazard Information

Refer to section 2.2.

11.1.4. Toxicological Information

HYDROCHROMIC PIGMENT	Oral Rat LD50: 100	
HYDROCHROMIC PIGMENT B	Oral Rat LD50: 2510 mg/kg	Oral Mouse LD50: 287 mg/kg

11.1.5. Hazard Class

Refer to section 2.2.

Further information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

HYDROCHROMIC PIGMENT B	Fish LC50/96h: 0.8800 mg/l
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Further information

An environmental hazard cannot be eliminated in the event of unprofessional handling or disposal. Toxic 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. This material and its container must be disposed of as hazardous waste.

Disposal of packaging

Containers must be recycled in compliance with national legislation and environmental regulations.

SECTION 14: Transport information

Hazard pictograms



14.1. UN number

UN3082

14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc salts)

14.3. Transport hazard class(es)

ADR/RID	9
Subsidiary risk	-
IMDG	9
Subsidiary risk	-
IATA	9
Subsidiary risk	-

14.4. Packing group

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14.4. Packing group

Packing group	III
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14.5. Environmental hazards

Environmental hazards	Yes
Marine pollutant	Yes

ADR/RID

Hazard ID	90
Tunnel Category	(E)

IMDG

EmS Code	F-A S-F
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IATA

Packing Instruction (Cargo)	964
Maximum quantity	450 L
Packing Instruction (Passenger)	964
Maximum quantity	450 L

SECTION 15: Regulatory information

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

Regulations	<p>This safety data sheet complies with Regulation (EC) 2015/830.</p> <p>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.</p>
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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

Other information

Revision	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> 11 - Acute toxicity. 11 - Skin corrosion/irritation. 11 - Respiratory or skin sensitisation. 11 - Repeated or prolonged exposure. 11 - Germ cell mutagenicity. 11 - Carcinogenicity. 11 - Reproductive toxicity. 11 - Serious eye damage/irritation. 11 - STOT-single exposure. 11 - STOT-repeated exposure. 11 - Aspiration hazard. 11 - 11.1.2. Mixtures. 11 - 11.1.3. Hazard Information. 11 - 11.1.5. Hazard Class. 12 - 12.1. Toxicity. 13 - General information. 15 - 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture. 15 - 15.2. Chemical safety assessment.
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Other information

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. Acute Tox. 4: H302 - Harmful if swallowed. Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
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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.
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