

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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Water Based Hydrochromic Flexo Ink

Revision 0

Revision date 2017-07-19

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

1.1. Product identifier

Product name	Water Based Hydrochromic Flexo Ink
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites; [SU7] Printing and reproduction of recorded media; [PC18] Ink and toners;
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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


Intended use	Manufacture of printed water sensitive articles.
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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.

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2.2. Label elements

Precautionary Statement: Prevention	P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	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/doctor/ if you feel unwell. P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P391 - Collect spillage.
Precautionary Statement: Storage	P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to approved waste disposal plant or contractor.

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 B					20 - 30%	Acute Tox. 4: H302; Eye Irrit. 2: H319; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;
HYDROCHROMIC PIGMENT					20 - 30%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335;
Isopropanol	603-117-00-0	67-63-0	200-661-7		1 - 10%	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336;

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.

5.3. Advice for firefighters

Wear suitable respiratory equipment when necessary.

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.

6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

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)

No precautions required to be mentioned.

Suitable packaging

Plastic containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Isopropanol	WEL 8-hr limit ppm: 400	WEL 8-hr limit mg/m3: 999
	WEL 15 min limit ppm: 500	WEL 15 min limit mg/m3: 1250
	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:

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.

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8.2. Exposure controls

Eye / face protection	Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).
Respiratory protection	Wear suitable respiratory equipment when necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Various colours according to type.
Odour	Strong
Odour threshold	No data available
pH	3 - 3.5
Melting point	Not applicable.
Freezing Point	No data available
Initial boiling point	100 °C
Flash point	Not applicable.
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable.
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.2
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available
Solubility	Miscible in water

9.2. Other information

Conductivity	No data available
Surface tension	No data available
Specific gravity	> 1.1
Gas group	Not applicable.
Benzene Content	Not applicable.
Lead content	No data available
VOC (Volatile organic compounds)	33 g/l

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

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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	May cause irritation to skin.
Serious eye damage/irritation	No data available.
Respiratory or skin sensitisation	No data available.
Germ cell mutagenicity	No data is available on this product.
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 available.
STOT-repeated exposure	No data available.
Aspiration hazard	No data available.
Repeated or prolonged exposure	No data is available on this product.

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
Isopropanol	Oral Rat LD50: 5000 mg/kg	Oral Mouse LD50: 3600 mg/kg
	Dermal Rabbit LD50: 12800 mg/kg	

Further information

	No data available.
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SECTION 12: Ecological information

12.1. Toxicity

HYDROCHROMIC PIGMENT B	Fish LC50/96h: 0.8800 mg/l
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12.3. Bioaccumulative potential

Partition coefficient

	Water Based Hydrochromic Flexo Ink No data available
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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.
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SECTION 13: Disposal considerations

General information

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

	Dispose of this material and its container to hazardous or special waste collection point.
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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

Packing group III

14.5. Environmental hazards

Environmental hazards	Yes
Marine pollutant	Yes

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available.

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	This safety data sheet complies with Regulation (EC) 2015/830.
	COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No

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

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.

15.2. Chemical safety assessment

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

SECTION 16: Other information

Other information

Text of Hazard Statements in Section 3

Acute Tox. 4: H302 - Harmful if swallowed.
 Eye Irrit. 2: H319 - Causes serious eye irritation.
 Aquatic Acute 1: H400 - Very toxic to aquatic life.
 Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
 Skin Irrit. 2: H315 - Causes skin irritation.
 STOT SE 3: H335 - May cause respiratory irritation.
 Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
 STOT SE 3: H336 - May cause drowsiness or dizziness.

Maximum content of VOC

33 g/l.

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.