

## SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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### MC350-8

Revision 7

Revision date 2018-03-13

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

##### 1.1. Product identifier

Product name	MC350-8
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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; [SU24] Scientific research and development; [PC9a] Coatings and paints, thinners, paint removers; [PROC7] Industrial spraying;
Description	Sensitive thermal coating for the exclusive use of scientific research and development (R&D) – SU24, Other uses are not recommended.

##### 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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#### SECTION 2: Hazards identification

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

2.1.2. Classification - EC 1272/2008	Skin Irrit. 2: H315; Carc. 1B: H350; Repr. 1A: H360Df; STOT RE 2: H373; Aquatic Chronic 2: H411;
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##### 2.2. Label elements

Hazard pictograms	
Signal Word	Danger
Hazard Statement	Skin Irrit. 2: H315 - Causes skin irritation. Carc. 1B: H350 - May cause cancer . Repr. 1A: H360Df - May damage the unborn child. Suspected of damaging fertility. STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure .

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## 2.2. Label elements

<b>Precautionary Statement: Prevention</b>	Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects. P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. 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/ . P314 - Get medical advice/attention if you feel unwell. P332+P313 - If skin irritation occurs: Get medical advice/attention. P391 - Collect spillage.
<b>Precautionary Statement: Storage</b>	P405 - Store locked up.

## 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
Xylene	601-022-00-9	1330-20-7	215-535-7	01-2119488216-32	20 - 30%	Flam. Liq. 3: H226; Acute Tox. 4: H332; Acute Tox. 4: H312; Skin Irrit. 2: H315;
2-methoxy-1-methylethyl acetate	607-195-00-7	108-65-6	203-603-9	01-2194759129-00	20 - 30%	Flam. Liq. 3: H226;
C.I. Pigment Red 104	082-010-00-5	12656-85-8	235-759-9	01-2119491303-00	10 - 20%	Carc. 1B: H350; Repr. 1A: H360Df; STOT RE 2: H373; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;
Ethylbenzene	601-023-00-4	100-41-4	202-849-4	01-2119489370-00	1 - 10%	Flam. Liq. 2: H225; Acute Tox. 4: H332;

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

<b>Inhalation</b>	Move the exposed person to fresh air. Seek medical attention.
<b>Eye contact</b>	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>	Wash off immediately with plenty of soap and water. Remove contaminated clothing. Treat as for inhalation if any signs of poisoning are present. Seek medical attention if irritation or symptoms persist.
<b>Ingestion</b>	DO NOT INDUCE VOMITING. Seek medical attention.

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

<b>Inhalation</b>	Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Inhalation of vapour may cause shortness of breath.
<b>Eye contact</b>	May cause irritation to eyes.
<b>Skin contact</b>	May cause irritation to skin.
<b>Ingestion</b>	Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system. Ingestion may cause nausea and vomiting.

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

<b>Inhalation</b>	If you feel unwell, seek medical advice (show the label where possible).
<b>Eye contact</b>	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>	If you feel unwell, seek medical advice (show the label where possible).
<b>Ingestion</b>	If you feel unwell, seek medical advice (show the label where possible).

## SECTION 5: Firefighting measures

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**5.1. Extinguishing media**

Alcohol resistant foam. Carbon oxides.

**5.2. Special hazards arising from the substance or mixture**

. Burning produces irritating, toxic and obnoxious fumes.

**5.3. Advice for firefighters**

Wear:. Self-contained breathing apparatus. Wear chemical protective clothing.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Eliminate all sources of ignition. 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. 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. Keep away from sources of ignition - No smoking. Use explosion proof equipment.

**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)**

Do not spray on naked flame or any other incandescent material.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.1.1. Exposure Limit Values**

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## 8.1.1. Exposure Limit Values

2-methoxy-1-methylethyl acetate	WEL 8-hr limit ppm: 50 WEL 15 min limit ppm: 100 WEL 8-hr limit mg/m3 total inhalable dust: - WEL 8-hr limit mg/m3 total respirable dust: -	WEL 8-hr limit mg/m3: 274 WEL 15 min limit mg/m3: 548 WEL 15 min limit mg/m3 total inhalable dust: - WEL 15 min limit mg/m3 total respirable dust: -
C.I. Pigment Red 104	WEL 8-hr limit ppm: - WEL 15 min limit ppm: - WEL 8-hr limit mg/m3 total inhalable dust: - WEL 8-hr limit mg/m3 total respirable dust: -	WEL 8-hr limit mg/m3: 0.05 (as chromium) WEL 15 min limit mg/m3: - WEL 15 min limit mg/m3 total inhalable dust: - WEL 15 min limit mg/m3 total respirable dust: -
Ethylbenzene	WEL 8-hr limit ppm: 100 WEL 15 min limit ppm: 125 WEL 8-hr limit mg/m3 total inhalable dust: - WEL 8-hr limit mg/m3 total respirable dust: -	WEL 8-hr limit mg/m3: 441 WEL 15 min limit mg/m3: 552 WEL 15 min limit mg/m3 total inhalable dust: - WEL 15 min limit mg/m3 total respirable dust: -
Xylene	WEL 8-hr limit ppm: 50 WEL 15 min limit ppm: 100 WEL 8-hr limit mg/m3 total inhalable dust: - WEL 8-hr limit mg/m3 total respirable dust: -	WEL 8-hr limit mg/m3: 220 WEL 15 min limit mg/m3: 441 WEL 15 min limit mg/m3 total inhalable dust: - WEL 15 min limit mg/m3 total respirable dust: -

DNEL: Derived no-effect level.

## Exposure Pattern - Workers

2-methoxy-1-methylethyl acetate	Acute inhalation - Local effects 550 mg/m <sup>3</sup> Long-term - inhalation - Systemic effects 275 mg/cm <sup>3</sup>	Long-term - dermal - Systemic effects 796 mg/m <sup>3</sup>
C.I. Pigment Red 104	Acute inhalation - Systemic effects 0 <none> Long-term - inhalation - Systemic effects 0.006 mg/m <sup>3</sup>	
Ethylbenzene	Acute inhalation - Local effects 293 mg/m <sup>3</sup> Long-term - inhalation - Systemic effects 77 mg/m <sup>3</sup>	Long-term - dermal - Systemic effects 180 mg/m <sup>3</sup>
Xylene	Acute inhalation - Systemic effects 289 mg/m <sup>3</sup> Acute inhalation - Local effects 289 mg/m <sup>3</sup> Long-term - dermal - Systemic effects 180 bw/day	Long-term - inhalation - Systemic effects 77 mg/m <sup>3</sup>

## Exposure Pattern - General population

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## Exposure Pattern - General population

2-methoxy-1-methylethyl acetate	<b>Long-term - inhalation - Systemic effects</b> 33 mg/m <sup>3</sup> <b>Long-term - inhalation - Local effects</b> 33 mg/m <sup>3</sup> <b>Long-term - oral - Systemic effects</b> 36 bw/day	<b>Long-term - dermal - Systemic effects</b> 320 mg/m <sup>3</sup>
Ethylbenzene	<b>Long-term - inhalation - Systemic effects</b> 15 mg/m <sup>3</sup> <b>Long-term - oral - Systemic effects</b> 1.3 mg/m <sup>3</sup>	
Xylene	<b>Long-term - inhalation - Systemic effects</b> 14.8 mg/m <sup>3</sup> <b>Long-term - dermal - Systemic effects</b> 108 bw/day	<b>Long-term - oral - Systemic effects</b> 1.6 bw/day

## 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	EN166. Approved safety goggles.
Skin protection - Handprotection	EN374-3. Chemical resistant gloves.
Respiratory protection	Wear suitable respiratory equipment when necessary. Use a respirator with multi-purpose combination (US) or type ABEK (EN 14387) as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).
8.2.3. Environmental exposure controls	Appropriate local exhaust ventilation is required.

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Red
Melting point	Not applicable.
Initial boiling point	140 °C
Flash point	30 °C
Vapour density	No data available
Relative density	1.56 (H <sub>2</sub> O = 1 @ 20 °C)
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	30
Explosive properties	No data available
Solubility	Slightly soluble in water

## 9.2. Other information

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## 9.2. Other information

VOC (Volatile organic compounds)	632 g/l
Total Solids	928 g/l

## SECTION 10: Stability and reactivity

## 10.1. Reactivity

Avoid sparks, flames, heat and sources of ignition.

## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

Oxidising agents.

## 10.4. Conditions to avoid

Heat, sparks and open flames.

## 10.5. Incompatible materials

No Significant Hazard.

## 10.6. Hazardous decomposition products

Burning produces irritating, toxic and obnoxious fumes.

## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity	Toxic by inhalation, in contact with skin and if swallowed.
Skin corrosion/irritation	Irritating 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	Carcinogen Cat 1B.
Reproductive toxicity	Possible risk of harm to the unborn child. Possible risk of impaired fertility.
STOT-single exposure	No data available.
STOT-repeated exposure	May cause damage to organs through repeated exposure. In animals, effects have been reported on the following organs: Kidney. Liver. Nasal tissue.
Aspiration hazard	Harmful if inhaled.

## 11.1.2. Mixtures

The Registry of Toxic Effects of Chemical (RTECS) contains toxicity data for components in this product.

## 11.1.3. Hazard Information

Refer to section 2.2.

## 11.1.4. Toxicological Information

2-methoxy-1-methylethyl acetate	Oral Rat LD50: 8532 mg/kg	Dermal Rabbit LD50: >5 gm/kg
C.I. Pigment Red 104	Oral Rat LD50: >10000 mg/kg	
Ethylbenzene	Inhalation Rat LC50/2H h: 55000 mg/m <sup>3</sup> Inhalation Mouse LC50/2H h: 35500 mg/m <sup>3</sup>	Oral Rat LD50: 3500 mg/kg Dermal Rabbit LD50: 17800 uL/kg
Xylene	Inhalation Rat LC50/4H h: 5000 ppm Oral Mouse LD50: 2119 mg/kg	Oral Rat LD50: 4300 mg/kg Dermal Rabbit LD50: >1700 mg/kg

## SECTION 12: Ecological information

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## 12.1. Toxicity

C.I. Pigment Red 104	Fish LC50/96h: 2500.0000 mg/l	Daphnia LC50/48h: 100
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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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## Partition coefficient

	MC350-8 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 available.
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## 12.6. Other adverse effects

	May cause long-term adverse effects in the aquatic environment.
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## SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

	Avoid release to the environment.
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## General information

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

	Do not allow product to enter drains. Dispose of this material and its container to hazardous or special waste collection point. Contact a licensed waste disposal company.
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## Disposal of packaging

	Dispose of this material and its container to hazardous or special waste collection point.
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## SECTION 14: Transport information

## Hazard pictograms

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## 14.1. UN number

	UN1992
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## 14.2. UN proper shipping name

	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methoxy Propyl Acetate, C.I. Pigment Red 104)
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## 14.3. Transport hazard class(es)

ADR/RID	3
Subsidiary risk	6.1
IMDG	3
Subsidiary risk	6.1
IATA	3

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## 14.3. Transport hazard class(es)

Subsidiary risk	6.1
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## 14.4. Packing group

Packing group	III
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## 14.5. Environmental hazards

Environmental hazards	No
Marine pollutant	No

## 14.6. Special precautions for user

	No data available.
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## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

	No data available.
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## ADR/RID

Hazard ID	36
Tunnel Category	(D/E)

## IMDG

EmS Code	F-E S-D
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## IATA

Packing Instruction (Cargo)	366
Maximum quantity	220 L
Packing Instruction (Passenger)	355
Maximum quantity	60 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 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.
	Pigment Red (CAS: 10412656-85-8) is included among substances subject to authorization under All XIV of REACH, but being the mixture used in scientific research and development activities , The exemption from Art. 56.3 of REACH;.

## 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	This document differs from the previous version in the following areas:. 1 - Product Use. 2 - Hazard pictograms. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Response. 2 - Precautionary Statement: Disposal. 9 - 9.1. Information on basic physical and chemical properties (Initial boiling point). 9 - 9.1. Information on basic physical and chemical properties (Melting point).
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## Other information

	<p>9 - 9.1. Information on basic physical and chemical properties (Flash point).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Autoignition temperature).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Explosive properties).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Relative density).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Vapour density).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Fat Solubility).</p> <p>9 - 9.1. Information on basic physical and chemical properties (Solubility).</p> <p>9 - 9.2. Other information (VOC (Volatile organic compounds)).</p> <p>9 - 9.2. Other information (Partition coefficient).</p> <p>9 - 9.2. Other information (Total Solids).</p>
<b>Text of Hazard Statements in Section 3</b>	<p>Flam. Liq. 3: H226 - Flammable liquid and vapour.</p> <p>Acute Tox. 4: H312 - Harmful in contact with skin.</p> <p>Skin Irrit. 2: H315 - Causes skin irritation.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>Carc. 1B: H350 - May cause cancer .</p> <p>Repr. 1A: H360Df - May damage the unborn child. Suspected of damaging fertility.</p> <p>STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure .</p> <p>Aquatic Acute 1: H400 - Very toxic to aquatic life.</p> <p>Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.</p> <p>Flam. Liq. 2: H225 - Highly flammable liquid and vapour.</p>
<b>Maximum content of VOC</b>	632 g/l.

## Further information

	<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. For professional use only in research and development.</p>
	All components are TSCA compliant.
<b>HMIS LABELLING</b>	HEALTH 4, FLAMMABILITY 3, PHYSICAL HAZARD 0.