

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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MC350-8

Revision 5

Revision date 2015-07-02

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	[SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU24] Scientific research and development; [PC9a] Coatings and paints, thinners, paint removers; [PROC7] Industrial spraying; [ERC8a] Wide dispersive indoor use of processing aids in open systems; [AC1] Vehicles;
Description	Temperature indicating colour change paint.

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

	For professional use only in scientific research and development. Temperature measurement and thermal mapping.
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture


2.1.1. Classification - 1999/45/EC	T; R45-61 Xn; R20/21-33-62 Xi; R38 Symbols: T: Toxic.
Main hazards	Harmful by inhalation and in contact with skin. Danger of cumulative effects. Irritating to skin. May cause cancer. May cause harm to the unborn child. Possible risk of impaired fertility.
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;

2.2. Label elements

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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 . Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Precautionary Statement: Prevention	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. P264 - Wash thoroughly after handling. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P308+P313 - IF exposed or concerned: Get medical advice/attention. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention. P391 - Collect spillage.
Precautionary Statement: Storage	P405 - Store locked up.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to

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.
Xylene	601-022-00-9	1330-20-7	215-535-7	01-2119488216-32	20 - 30%	R10 Xn; R20/21 Xi; R38	
2-methoxy-1-methylethyl acetate	607-195-00-7	108-65-6	203-603-9	01-2194759129-00	20 - 30%	R10	
C.I. Pigment Red 104	082-010-00-5	12656-85-8	235-759-9	01-2119491303-00	10 - 20%	Carc. Cat. 2; R45 Repr. Cat. 1; R61 Repr. Cat. 3; R62 R33 N; R50/53	
Ethylbenzene	601-023-00-4	100-41-4	202-849-4	01-2119489370-00	1 - 10%	F; R11 Xn; R20	

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
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

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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	DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label.

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

Inhalation	Harmful by inhalation. Inhalation may cause nausea and vomiting. May cause dizziness and headache.
Eye contact	May cause irritation to eyes.
Skin contact	May cause irritation to skin. May cause dermatitis.
Ingestion	Toxic: danger of serious damage to health by prolonged exposure if swallowed. Ingestion may cause nausea and vomiting. Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system.

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	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use as appropriate: Carbon dioxide (CO2), Dry chemical, Foam.
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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. Eliminate all sources of ignition. 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. 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. Use explosion proof equipment. Keep away from sources of ignition - No smoking. 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.
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7.3. Specific end use(s)

	Do not spray on naked flame or any other incandescent material. Ensure adequate ventilation of the working area.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

2-methoxy-1-methylethyl acetate	WEL 8-hr limit ppm: 50	WEL 8-hr limit mg/m3: 274
	WEL 15 min limit ppm: 100	WEL 15 min limit mg/m3: 548
	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:
Ethylbenzene	WEL 8-hr limit ppm: 100	WEL 8-hr limit mg/m3: 441
	WEL 15 min limit ppm: 125	WEL 15 min limit mg/m3: 552
	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:
Xylene	WEL 8-hr limit ppm: 50	WEL 8-hr limit mg/m3: 220
	WEL 15 min limit ppm: 100	WEL 15 min limit mg/m3: 441
	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.
Eye / face protection	Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).
Respiratory protection	Self-contained breathing apparatus. Wear protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Red
Initial boiling point	140
Flash point	30
Viscosity	30

9.2. Other information

VOC (Volatile organic compounds)	637
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SECTION 10: Stability and reactivity

10.1. Reactivity

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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	Danger of cumulative effects.
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	May cause cancer.
Reproductive toxicity	May impair fertility.
STOT-single exposure	No data available.
STOT-repeated exposure	No data available.

11.1.4. Toxicological Information

2-methoxy-1-methylethyl acetate	Oral Rat LD50: 8532 mg/kg	Dermal Rabbit LD50: >5 gm/kg
Ethylbenzene	Inhalation Rat LC50/2H h: 55000 mg/m ³ Inhalation Mouse LC50/2H h: 35500 mg/m ³	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

11.1.13. Other information

Lead salts have been reported to cross the placenta and to induce embryo- and fetto- mortality. They also have teratogenic effect in some animal species. No teratogenic effects have been reported with exposure to organometallic lead compounds. Adverse effects of lead on human reproduction, embryonic and fetal development, and postnatal (e.g., mental) development have been reported. Excessive exposure can affect blood, nervous, and digestive systems. The synthesis of hemoglobin is inhibited and results in anemia. If left untreated, neuromuscular dysfunction, possible paralysis, and encephalopathy can result. Additional symptoms of overexposure include: joint and muscle pain, weakness of the extensor muscles (frequently the hand and wrist), headache, dizziness, abdominal pain, diarrhea, constipation, nausea, vomiting, blue line on the gums, insomnia, and metallic taste. High body levels produce increased cerebrospinal pressure, brain damage, and stupor leading to coma and often death., Anorexia., Vomiting, Convulsions, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1. Toxicity

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12.1. Toxicity

C.I. Pigment Red 104	Fish LC50/96h: 2500.0000 mg/l
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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 available.
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12.6. Other adverse effects

	May cause long-term adverse effects in the environment. Very toxic to aquatic organisms.
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Further information

	Very toxic to aquatic organisms, 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
Subsidiary risk	6.1

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14.4. Packing group	
Packing group	III
14.5. Environmental hazards	
Environmental hazards	No
Marine pollutant	No
ADR/RID	
Hazard ID	36
Tunnel Category	(D/E)
IMDG	
EmS Code	F-E S-D
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 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	
Revision	This document differs from the previous version in the following areas:. 2 - 2.1. Classification of the substance or mixture. 2 - 2.1.2. Classification - EC 1272/2008. 2 - Hazard pictograms. 2 - Signal Word. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Response. 2 - Precautionary Statement: Storage. 2 - Precautionary Statement: Disposal. 9 - 9.2. Other information (Product Subcategory). 12 - 12.1. Toxicity. 15 - Labelling. 15 - Risk phrases. 15 - Safety phrases. 16 - Maximum content of VOC.
Text of risk phrases in Section 3	R10 - Flammable R11 - Highly flammable. R20/21 - Harmful by inhalation and in contact with skin. R20 - Harmful by inhalation. R33 - Danger of cumulative effects. R38 - Irritating to skin.

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Other information

Text of Hazard Statements in Section 3	<p>R45 - May cause cancer. R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R61 - May cause harm to the unborn child. R62 - Possible risk of impaired fertility.</p> <hr/> <p>Flam. Liq. 3: H226 - Flammable liquid and vapour. Acute Tox. 4: H312 - Harmful in contact with skin. Skin Irrit. 2: H315 - Causes skin irritation. Acute Tox. 4: H332 - Harmful if inhaled. 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 . Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects. Flam. Liq. 2: H225 - Highly flammable liquid and vapour.</p>
Maximum content of VOC	637 g/l.

Further information

HMIS LABELLING	<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. All components TSCA compliant.</p>
HEALTH LABELLING	HEALTH 3. FLAMMABILITY 2., PHYSICAL HAZARD 0.