

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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SC550

Revision 1

Revision date 2014-12-12

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

1.1. Product identifier

Product name	SC550
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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; [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 - 67/548/EEC	T; R61 Xn; R20/22-33-62 N; R50/53 R10 Symbols: T: Toxic. N: Dangerous for the environment.
Main hazards	Flammable. Harmful by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May cause harm to the unborn child. Possible risk of impaired fertility.
2.1.2. Classification - EC 1272/2008	Flam. Liq. 3: H226; Acute Tox. 4: H302; Acute Tox. 4: H332; Repr. 1A: H360; STOT RE 2: H373; Aquatic Chronic 1: H410;


2.2. Label elements

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2.2. Label elements

Hazard pictograms	
Signal Word	Danger
Hazard Statement	<p>Flam. Liq. 3: H226 - Flammable liquid and vapour.</p> <p>Acute Tox. 4: H302 - Harmful if swallowed.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>Repr. 1A: H360 - May damage fertility or the unborn child .</p> <p>STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure .</p> <p>Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.</p>
Precautionary Statement: Prevention	<p>P201 - Obtain special instructions before use.</p> <p>P202 - Do not handle until all safety precautions have been read and understood.</p> <p>P210 - Keep away from heat/sparks/open flames/hot surfaces. – No smoking.</p> <p>P233 - Keep container tightly closed.</p> <p>P240 - Ground/bond container and receiving equipment.</p> <p>P241 - Use explosion-proof electrical/ventilating/lighting// equipment.</p> <p>P242 - Use only non-sparking tools.</p> <p>P243 - Take precautionary measures against static discharge.</p> <p>P260 - Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>P264 - Wash thoroughly after handling.</p> <p>P270 - Do no eat, drink or smoke when using this product.</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>P273 - Avoid release to the environment.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P281 - Use personal protective equipment as required.</p>
Precautionary Statement: Response	<p>P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P308+P313 - IF exposed or concerned: Get medical advice/attention.</p> <p>P312 - Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P314 - Get medical advice/attention if you feel unwell.</p> <p>P330 - Rinse mouth.</p> <p>P370+P378 - In case of fire: Use for extinction.</p> <p>P391 - Collect spillage.</p>
Precautionary Statement: Storage	<p>P403+P235 - Store in a well-ventilated place. Keep cool.</p> <p>P405 - Store locked up.</p>
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
CI Pigment Red 105		1314-41-6	215-235-6	01-2119517589-27	50 - 60%	O; R8 T; R61 Xn; R20/22-33-62 N; R50/53
Xylene	601-022-00-9	1330-20-7	215-535-7	01-2119488216-32	1 - 10%	R10 Xn; R20/21 Xi; R38
2-methoxy-1-methylethyl acetate	607-195-00-7	108-65-6	203-603-9	01-2194759129-00	1 - 10%	R10
Ethylbenzene	601-023-00-4	100-41-4	202-849-4	01-2119489370-00	1 - 10%	F; R11 Xn; R20

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3.1. Substances

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
CI Pigment Red 105		1314-41-6	215-235-6	01-2119517589-27	50 - 60%	Ox. Sol. 2: H272; Acute Tox. 4: H302; Acute Tox. 4: H332; Carc. 2: H351; Repr. 1A: H360; Aquatic Acute 1: H400; Aquatic Chronic 1: H410;
Xylene	601-022-00-9	1330-20-7	215-535-7	01-2119488216-32	1 - 10%	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	1 - 10%	Flam. Liq. 3: H226;
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

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.

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. Use explosion proof equipment. Keep away from sources of ignition - No smoking. 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.

7.3. Specific end use(s)

Do not spray on naked flame or any other incandescent material. Ensure adequate ventilation of the working area.

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
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
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

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

State	Liquid
Colour	Red
Odour	Characteristic
Boiling point	140
Flash point	35
Solubility	Slightly miscible in water

9.2. Other information

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9.2. Other information

Specific gravity	2.18
VOC (Volatile organic compounds)	340 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

	Avoid sparks, flames, heat and sources of ignition.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	Oxidising agents.
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10.4. Conditions to avoid

	Heat, sparks and open flames.
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10.5. Incompatible materials

	No Significant Hazard.
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10.6. Hazardous decomposition products

	Burning produces irritating, toxic and obnoxious fumes.
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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
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11.1.13. Other information

	properties have not been thoroughly investigated.
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SECTION 12: Ecological information

12.1. Toxicity

	No data available
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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



14.1. UN number

	UN1992
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14.2. UN proper shipping name

	FLAMMABLE LIQUID, TOXIC, N.O.S. (2-METHOXY-1-METHYLETHYL ACETATE, LEAD OXIDE)
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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
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.
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SECTION 16: Other information**Other information**

Revision	This document differs from the previous version in the following areas: 9 - 9.2. Other information (VOC (Volatile organic compounds)).
Text of risk phrases in Section 3	R8 - Contact with combustible material may cause fire. R10 - Flammable R11 - Highly flammable. R20/21 - Harmful by inhalation and in contact with skin. R20/22 - Harmful by inhalation and if swallowed. R20 - Harmful by inhalation. R33 - Danger of cumulative effects. R38 - Irritating to skin. 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.
Text of Hazard Statements in Section 3	Ox. Sol. 2: H272 - May intensify fire; oxidiser. Acute Tox. 4: H302 - Harmful if swallowed. Acute Tox. 4: H332 - Harmful if inhaled. Carc. 2: H351 - Suspected of causing cancer .

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Other information

	Repr. 1A: H360 - May damage fertility or the unborn child . Aquatic Acute 1: H400 - Very toxic to aquatic life. Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects. Flam. Liq. 3: H226 - Flammable liquid and vapour. Acute Tox. 4: H312 - Harmful in contact with skin. Skin Irrit. 2: H315 - Causes skin irritation. Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Maximum content of VOC	340 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. All components TSCA compliant.
HMIS LABELLING	HEALTH 3. FLAMMABILITY 2,. PHYSICAL HAZARD 0.