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**SAFETY DATA SHEET**

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

## 1.1 Product identifier

- Product Name: MC153-14

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/mixture: For scientific research and development only., For professional use only.

## 1.3 Details of the supplier of the safety data sheet

- Name of Supplier: TMC Hallcrest
- Address of Manufacturer: Riverside Buildings,  
Dock Road,  
Connah's Quay,  
Deeside,  
Flintshire, CH5 4DS,  
Wales. U.K.
- Telephone: +44 (0) 1244 818348
- Email: Sales@tmc.hallcrest.com

## 1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1244 818348

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**SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

- CLP: Skin Sens. 1, Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2

## 2.2 Label elements



- Signal Word: Warning
- Hazard statements  
Flammable liquid and vapour.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause an allergic skin reaction.
- Precautionary statements  
Store in a well-ventilated place. Keep cool.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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**SECTION 2: Hazards identification (....)**

If skin irritation or rash occurs: Get medical advice/attention.  
Keep container tightly closed.

**2.3 Other hazards**

- Contains: Thermochromic Cobalt Compound
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**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

- xylene
  - CAS Number: 1330-20-7
  - EC Number: 215-535-7
  - Concentration: 10-20%
  - Categories: Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2
  - Symbols: GHS02;GHS07
  - H Statements: H226;H332;H312;H315
  - Water Hazard Class (Official): 2
- 2-methoxy-1-methylethyl acetate
  - CAS Number: 108-65-6
  - EC Number: 203-603-9
  - Concentration: 30-40%
  - Categories: Flam. Liq. 3
  - Symbols: GHS02
  - H Statements: H226
  - Water Hazard Class (Official):
  - Water Hazard Class (Company): Not Classified
- ethylbenzene
  - CAS Number: 100-41-4
  - EC Number: 202-849-4
  - Concentration: 1-10%
  - Categories: Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1
  - Symbols: GHS02;GHS07;GHS08
  - R/H Phrases: H225;H332;H304;H373 (hearing organs)
  - Water Hazard Class (Official): 1
- Thermochromic Cobalt Compound
  - CAS Number: Proprietary
  - EC Number: Proprietary
  - Concentration: 15%
  - Categories: Acute Tox. 4, Acute Tox. 4, Skin Sens. 1 Eye Irrit 2
  - Symbols: GHS07
  - H Statements: H302,H332,H317,H319
  - Water Hazard Class (Company): No information available

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Wash contaminated clothing before reuse.
- Contact with eyes  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Contact with skin  
IF ON SKIN: Wash with plenty of soap and water.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
If skin irritation occurs: Get medical advice/attention.  
If skin irritation or rash occurs: Get medical advice/attention.
- Ingestion  
Do not induce vomiting  
Get medical advice/attention.
- Inhalation  
If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If you feel unwell, seek medical advice (show the label where possible)

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

- May cause irritation
- May cause sensitisation by skin contact.
- The ingestion of significant quantities may cause damage to central nervous system
- The ingestion of significant quantities may cause nausea/vomiting
- May cause shortness of breath
- May cause coughing

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

- Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
- Seek medical attention if irritation persists
- Harmful if swallowed.
- If swallowed seek medical advice immediately and show this container or label

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Use as appropriate: Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam.

### 5.2 Special hazards arising from the substance or mixture

- May give off noxious and toxic fumes in a fire

### 5.3 Advice for firefighters

- Wear suitable respiratory protection

**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.

**6.2 Environmental precautions**

- Avoid release to the environment.

**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.

**6.4 Reference to other sections**

- For disposal refer to section 13.
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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash contaminated clothing before reuse.
- Dispose of contents/container to hazardous waste

**7.2 Conditions for safe storage, including any incompatibilities**

- Store in a well-ventilated place. Keep cool.
- Keep only in original packaging.

**7.3 Specific end use(s)**

- Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
  - Do not spray on a naked flame or any incandescent material
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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

- 2-methoxy-1-methylethyl acetate  
WEL 8-hr limit ppm: 50      WEL 8-hr limit mg/m<sup>3</sup>: 274  
WEL 15 min limit ppm: 100      WEL 15 min limit mg/m<sup>3</sup>: 548
  - ethylbenzene  
WEL 8-hr limit ppm: 100      WEL 8-hr limit mg/m<sup>3</sup>: 441  
WEL 15 min limit ppm: 125      WEL 15 min limit mg/m<sup>3</sup>: 552
  - Thermo-chromic Cobalt Compound  
WEL 8-hr limit ppm:      WEL 8-hr limit mg/m<sup>3</sup>: 0.1 as cobalt  
WEL 15 min limit ppm:      WEL 15 min limit mg/m<sup>3</sup>: 0.1 as cobalt
  - xylene  
WEL 8-hr limit ppm: 50      WEL 8-hr limit mg/m<sup>3</sup>: 220  
WEL 15 min limit ppm: 100      WEL 15 min limit mg/m<sup>3</sup>: 441
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**SECTION 8: Exposure controls/personal protection (....)**

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>

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 - inhalation - Systemic effects 77 mg/m<sup>3</sup>

Long-term - dermal - Systemic effects 180 bw/day

Exposure Pattern - General population

2-methoxy-1-methylethyl acetate:

Long-term - inhalation - Systemic effects 33 mg/m<sup>3</sup> Long-term - inhalation - Local effects

33 mg/m<sup>3</sup> Long-term - dermal - Systemic effects 320 mg/m<sup>3</sup>

Long-term - oral - Systemic effects 36 bw/day

Ethylbenzene :

Long-term - inhalation - Systemic effects 15 mg/m<sup>3</sup>

Long-term - oral - Systemic effects 1.3 mg/m<sup>3</sup>

Xylene :

Long-term - inhalation - Systemic effects 14.8 mg/m<sup>3</sup>

Long-term - dermal - Systemic effects 108 bw/day

Long-term - oral - Systemic effects 1.6 bw/day

**8.2 Exposure controls**

- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Ensure adequate ventilation
- Wear protective gloves/protective clothing/eye protection/face protection.
- Safety goggles with lateral shielding (DIN EN 166)
- Wear protective gloves in cases of prolonged contact (DIN EN 374).
- 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.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

**SECTION 9: Physical and chemical properties (....)**

- Appearance: Liquid
- colour Purple / Mauve
- Auto-ignition point - not known
- Boiling Point/Range: 140°C
- Evaporation rate - not known
- Flashpoint: 40°C
- Odour: Characteristic odour
- Specific gravity: 1.16 g/cm<sup>3</sup>
- Vapour pressure - not known
- Vapour density - not known
- Viscosity - not known

**9.2 Other information**

- Volatile Organic Compound Content 641g/l %
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**SECTION 10: Stability and reactivity****10.1 Reactivity**

- Keep away from heat and sources of ignition

**10.2 Chemical stability**

- Stable

**10.3 Possibility of hazardous reactions**

- No hazardous reactions known if used for its intended purpose

**10.4 Conditions to avoid**

- Keep away from heat and sources of ignition

**10.5 Incompatible materials**

- No special requirements

**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: Toxic by inhalation, in contact with skin and if swallowed.
- Skin corrosion/irritation: May cause irritation to skin.
- Serious eye damage/irritation: No data available
- Respiratory or Skin Sensitisation: May cause allergic skin reaction
- Germ cell mutagenicity - No data is available on this product

**SECTION 11: Toxicological information (....)**

- Carcinogenicity: Cobalt Pigment only - ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.
  - Reproductive Effects:
  - STOT-single exposure: No data is available on this product.
  - STOT-repeated exposure: No data is available on this product.
  
  - 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<sup>3</sup>                      Oral Rat LD50: 3500 mg/kg  
Inhalation Mouse LC50/2H h: 35500 mg/m<sup>3</sup>                  Dermal Rabbit LD50: 17800 uL/kg
  
  - xylene  
Inhalation Rat LC50/4H h: 5000 ppm                      Oral Rat LD50: 4300 mg/kg  
Oral Mouse LD50: 2119 mg/kg                              Dermal Rabbit LD50: >1700 mg/kg
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**SECTION 12: Ecological information**

## 12.1 Toxicity

- No information available

## 12.2 Persistence and degradability

- No information available

## 12.3 Bioaccumulative potential

- No information available

## 12.4 Mobility in soil

- immiscible with water

## 12.5 Results of PBT and vPvB assessment

- No information available

## 12.6 Other adverse effects

- May cause long-term adverse effects in the environment
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**SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

- Dispose of contents/container to hazardous waste
  - Avoid release to the environment.
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**SECTION 14: Transport information**

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**SECTION 14: Transport information (....)****14.1 UN number**

- UN No.: 1263

**14.2 Proper Shipping Name**

- Proper Shipping Name: PAINT

**14.3 Transport hazard class(es)**

- Hazard Class: 3

**14.4 Packing group**

- Packing Group: III

**14.5 Environmental hazards****14.6 Special precautions for user****14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No1907/2006 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.
- Water Hazard Class (Company): 2

**15.2 Chemical safety assessment**

- A chemical safety assessment (CSA) for this product has not yet been completed
  - All components are either, pre-registered, registered or exempt under REACH.
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**SECTION 16: Other information**

Text not given with phrase codes where they are used elsewhere in this safety data sheet:- H225: Highly flammable liquid and vapour. H226: Flammable liquid and vapour. H302: Harmful if swallowed. H304: May be fatal if swallowed and enters airways. H312: Harmful in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H332: Harmful if inhaled. H373: May cause damage to organs through prolonged or repeated exposure.

This information supplied in this Safety Data Sheet is designed only as guidance for the safe use and storage 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 only relates to the specific



SECTION 16: Other information (....)

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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