
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: MC135-2
- Product Part Number: IPMC135THE
- UFI: K3X1-M0UD-800P-36J7

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

- Use of the substance/mixture: For professional use only., For scientific research and development only., Temperature indicating colour change paint.

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
- WEB: www.thermalpaintservices.com

1.4 Emergency telephone number

- Emergency Telephone: +44 (0) 1244 818348

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

2.2 Label elements



- Signal Word: Danger

Hazard statements

- Flammable liquid and vapour.
- Suspected of causing cancer if swallowed
- Causes skin irritation.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.

SECTION 2: Hazards identification (....)

Precautionary statements

Store in a well-ventilated place. Keep cool.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Avoid breathing dust/fume/gas/mist/vapours/spray.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards

- Cobalt based pigment only - ACGIH A3: Animal carcinogen 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 epidemiological 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

xylene

CAS Number:	1330-20-7
EC Number:	215-535-7
Concentration:	30-40%
Specific Concentration Limits:	None assigned
M factor:	Not available
Acute toxicity estimate:	Not available
Categories:	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2
Symbols:	GHS02;GHS07
H Statements:	H226;H332;H312;H315

2-methoxy-1-methylethyl acetate

CAS Number:	108-65-6
EC Number:	203-603-9
Concentration:	10-20%
Specific Concentration Limits:	None assigned
M factor:	Not available
Acute toxicity estimate:	Not available
Categories:	Flam. Liq. 3, Lact.
Symbols:	GHS02
H Statements:	H226

cobalt based pigment

CAS Number:	Proprietary
EC Number:	Proprietary
Concentration:	10-20%
Specific Concentration Limits:	None assigned

SECTION 3: Composition/information on ingredients (....)

M factor: Not available
Acute toxicity estimate: Not available
Categories: Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2, STOT SE 3
Symbols: GHS07, GHS08
H Statements: EUH208, H302, H315, H317, H319, H334, H335, H351

ethylbenzene

CAS Number: 100-41-4
EC Number: 202-849-4
Concentration: 1-10%
Specific Concentration Limits: None assigned
M factor: Not available
Acute toxicity estimate: Not available
Categories: Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1
Symbols: GHS02;GHS07;GHS08
H Statements: H225;H332;H304;H373

toluene

CAS Number: 108-88-3
EC Number: 203-625-9
Concentration: <1%
Specific Concentration Limits: None assigned
M factor: Not available
Acute toxicity estimate: Not available
Categories: Flam. Liq. 2, Skin Irrit. 2, Repr. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1
Symbols: GHS02;GHS08;GHS07
H Statements: H225;H361d;H304;H336;H373;H315

2,6-dimethylheptan-4-one; di-isobutyl ketone

CAS Number: 108-83-8
EC Number: 203-620-1
Concentration: <0.1%
Specific Concentration Limits: STOT SE 3; H335: C ≥ 10 %
M factor: Not available
Acute toxicity estimate: Not available
Categories: Flam. Liq. 3, STOT SE 3
Symbols: GHS02;GHS07
H Statements: H226;H335

SECTION 4: First aid measures**4.1 Description of first aid measures**

- IF exposed or concerned: Get medical advice/attention.

Contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

SECTION 4: First aid measures (....)

present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Contact with skin

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

Ingestion

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 experiencing respiratory symptoms: Call a POISON CENTER/doctor/

4.2 Most important symptoms and effects, both acute and delayed

- Causes severe irritation
- May cause an allergic skin reaction.
- May cause gastro-intestinal disturbances
- In cases of severe exposure, nausea/vomiting may develop

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically
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SECTION 5: Firefighting measures**5.1 Extinguishing media**

- In case of fire: Use CO₂, Powder, Foam to extinguish.

5.2 Special hazards arising from the substance or mixture

- Flammable liquid and vapour. Combustion or thermal decomposition will evolve toxic and irritant vapours.

5.3 Advice for firefighters

- Wear suitable respiratory protection
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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.
- In case of leakage, eliminate all ignition sources.

6.2 Environmental precautions

- Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

- Ensure adequate ventilation of the working area. Eliminate all sources of ignition. Wear suitable protective equipment.
 - Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly.
 - Avoid release to the environment.
 - Dispose of contents to a hazardous or special waste collection point
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SECTION 6: Accidental release measures (....)

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

- Wash contaminated clothing before reuse.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective gloves/protective clothing/eye protection/face protection.
- In case of inadequate ventilation wear respiratory protection.

7.2 Conditions for safe storage, including any incompatibilities

- Store in a well-ventilated place. Keep cool.

7.3 Specific end use(s)

- For scientific research and development only.
 - 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

xylene

WEL (long term): 50 ppm 220 mg/m³WEL (short term): 100 ppm 441 mg/m³

2-methoxy-1-methylethyl acetate

WEL (long term): 50 ppm 274 mg/m³WEL (short term): 100 ppm 548 mg/m³

ethylbenzene

WEL (long term): 100 ppm 441 mg/m³WEL (short term): 125 ppm 552 mg/m³

toluene

WEL (long term): 50 ppm 191 mg/m³WEL (short term): 100 ppm 384 mg/m³

2,6-dimethylheptan-4-one; di-isobutyl ketone

WEL (long term): 25 ppm 148 mg/m³

cobalt based pigment

WEL (long term): 0.1 mg/m³ (8-hr TWA as Cobalt)

8.2 Exposure controls



SECTION 8: Exposure controls/personal protection (...)

- Appropriate engineering controls: Ensure adequate ventilation of work place
 - The usual precautions for handling chemicals should be observed
 - Use non-sparking tools.
 - 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.
 - Contaminated work clothing should not be allowed out of the workplace.
 - 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).
 - In case of inadequate ventilation wear respiratory protection.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Physical state: Liquid
- Colour: Pink
- Odour: Characteristic odour
- Melting point/Range: No information available
- Boiling Point/Range: Not available
- Flammability: Flammable
- Solubility in water: Partially soluble in water
- Density: 1.13 g/cm³

9.2 Other information

- Volatile Organic Compound Content 610g/l
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SECTION 10: Stability and reactivity

10.1 Reactivity

- No special requirements

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 naked flames, incandescent or hot surfaces

10.5 Incompatible materials

- No information available

10.6 Hazardous decomposition products

- Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 - Burning produces irritating, toxic and obnoxious fumes.
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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Estimated LD₅₀ (oral) (ATE) : 3125 mg/kg
Estimated LD₅₀ (dermal) (ATE) : 3235.294 mg/kg
Estimated LD₅₀ (inhalational) (ATE) : 25.88235 mg/l/4hr (gas/vapour)

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

*
Resp. Sens. 1; H334: C ≥ 0,5 %
Skin Sens. 1; H317: C ≥ 0,5

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Carcinogen, category 2
Suspected of causing cancer.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT (specific target organ toxicity) - single exposure

No information available

STOT (specific target organ toxicity) - repeated exposure

No information available

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

- partly miscible with water

12.5 Results of PBT and vPvB assessment

- No information available

12.6 Endocrine disrupting properties

SECTION 12: Ecological information (....)

- The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

- No information available
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SECTION 13: Disposal considerations**13.1 Waste treatment methods**

- Dispose of contents/container to an authorised waste collection point
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SECTION 14: Transport information**14.1 UN number or ID number**

- UN No.: 1263

14.2 UN 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

- On available data, substance is not harmful to the environment

14.6 Special precautions for user

- No information available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

- No information available
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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

xylene

SECTION 15: Regulatory information (....)

Water Hazard Class (Official): 2

2-methoxy-1-methylethyl acetate

Water Hazard Class (Company): Not Classified

cobalt based pigment

Water Hazard Class (Official): Not Classified

ethylbenzene

Water Hazard Class (Official): 1

toluene

Water Hazard Class (Official): 2

2,6-dimethylheptan-4-one; di-isobutyl ketone

Water Hazard Class (Official): 1

15.2 Chemical safety assessment

- A chemical safety assessment (CSA) for this product has not yet been completed

SECTION 16: Other information

Text not given with phrase codes where they are used elsewhere in this safety data sheet:-
EUH208: Contains #. May produce an allergic reaction. 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. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness. H351: Suspected of causing cancer. H361d: Suspected of damaging the unborn child. 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 material designated and may not be valid for such material used in combination with any other materials or in any other process.

--- end of safety datasheet ---
