
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: MC165-2

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

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.
- 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.

SECTION 2: Hazards identification (....)

IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards

- Contains: Cobalt Based Pigment
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SECTION 3: Composition/information on ingredients**3.2 Mixtures**

- Cobalt Based Pigment
 - CAS Number: Proprietary
 - EC Number: Proprietary
 - Concentration: 10-20%
 - Categories: Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2, STOT SE 3
 - Symbols: GHS07
 - H Statements: H302, H315, H317,H319,H334,H335,H351
 - xylene
 - CAS Number: 1330-20-7
 - EC Number: 215-535-7
 - Concentration: 25-30%
 - Categories: Flam. Liq. 3, Acute Tox. 4, 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: 15-20%
 - Categories: Flam. Liq. 3
 - Symbols: GHS02
 - H Statements: H226
 - ethylbenzene
 - CAS Number: 100-41-4
 - EC Number: 202-849-4
 - Concentration: 1-10%
 - Categories: Flam. Liq. 2; Acute Tox. 4; Asp. Tox. 1; STOT RE
 - Symbols: GHS02, GHS07, GHS0
 - R/H Phrases: H225, H332, H304, H373 (hearing organs)
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SECTION 4: First aid measures**4.1 Description of first aid measures**

- Contact with eyes
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
 - IF exposed or concerned: Get medical advice/attention.
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SECTION 4: First aid measures (....)

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

4.2 Most important symptoms and effects, both acute and delayed

- Contact with eyes
 - Causes severe irritation
- Contact with skin
 - May cause irritation
 - May cause an allergic skin reaction.
- Ingestion
 - May cause gastro-intestinal disturbances
- Inhalation
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

4.3 Indication of any immediate medical attention and special treatment needed

- IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
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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

SECTION 6: Accidental release measures (....)

- 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

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.
- In case of inadequate ventilation wear respiratory 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.

7.3 Specific end use(s)

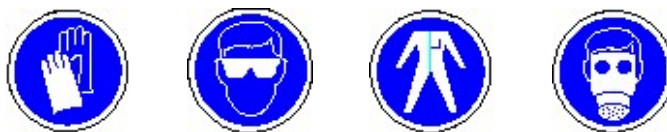
- For scientific research and development only.
 - Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
 - Do not spray on a naked flame or any incandescent material
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SECTION 8: Exposure controls/personal protection**8.1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

- Cobalt Based Pigment
OES / LTEL: 0.1 mg/m³ (8 hour TWA) as Cobalt
- 2-methoxy-1-methylethyl acetate
MEL / LTEL: 50 ppm 274 mg/m³
MEL / STEL: 274 ppm 100 mg/m³
- xylene
OES / LTEL: 50 ppm 220 mg/m³
MEL / STEL: 100 ppm 441 mg/m³
- ethylbenzene
MEL / LTEL: 100 ppm 441 mg/m³
MEL / STEL: 125 ppm 552 mg/m³

8.2 Exposure controls

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

- 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)
- Use non-sparking tools.
- Wear protective gloves in cases of prolonged contact (DIN EN 374).
- In case of inadequate ventilation wear respiratory protection.

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

- Appearance: Liquid
- colour Violet
- Odour: Characteristic odour
- Odour threshold: not known ppm
- Auto-ignition point - not known
- Melting point - not known
- Boiling point - not known
- Flashpoint: 31°C
- Evaporation rate - not known
- Flammability: No information available
- Lower Flammable Limit:
- Upper flammability limit not known%(in air)
- Upper Explosive Limit: 10
- Lower Explosive Limit: 1.1
- Vapour density - not known
- Vapour pressure - not known
- Specific gravity: 1.1 g/cm³
- Vapour pressure - not known
- Viscosity - not known
- Water solubility - not known
- Partition coefficient : n-Octanol/water - not known
- Auto-ignition point - not known

9.2 Other information

- Volatile Organic Compound Content 556g/l

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

SECTION 10: Stability and reactivity (....)

- 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 obnoxious and irritating fumes.
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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

- Acute toxicity - Ingestion Calculation method : Harmfull if swallowed.
 - Acute Toxicity - Skin contact : Not classified
 - Acute Toxicity - Inhalation : Not classified
 - Skin corrosion / irritation : Calculation method : causes skin irritation
 - Serious eye damage : Not classified
 - Respiratory or Skin Sensistisation: May cause allergic skin reaction
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 - Germ cell mutagenicity - No data is available on this product
 - Carcinogenic Effects: Calculation method : Carc 2
 - 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: May impair fertility
 - STOT-single exposure: No data is available on this product.
 - STOT-repeated exposure: No data is available on this product.
 - Aspiration hazard: No data is available on this product.
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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

- partly miscible with water

12.5 Results of PBT and vPvB assessment

- No information available

12.6 Other adverse effects

- No information available
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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- Dispose of contents/container to hazardous waste
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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

- 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

- Tunnel Code: D/E
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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) 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.

15.2 Chemical safety assessment

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

SECTION 16: Other information (....)

irritation. H332: Harmful if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H351: Suspected of causing cancer. 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.

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