

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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Chameleon Solvent Based Pad Ink

Revision 0

Revision date 2012-01-26

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

1.1. Product identifier

Product name Chameleon Solvent Based Pad Ink

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

Description Temperature sensitive, colour change ink.

1.3. Details of the supplier of the safety data sheet

| | |
|------------------|---|
| Company | LCR Hallcrest Ltd |
| Address | Riverside Buildings Dock Road Connah's Quay Flintshire CH5 4DS United Kingdom |
| Web | www.lcrhallcrest.com |
| Telephone | +44 (0) 1244 817107 |
| Fax | +44 (0)1244 818502 |
| Email | sales@lcrhallcrest.com |

Intended use

Manufacture of temperature-indicating products and temperature-sensitive decorative effects.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 1999/45/EC Xn; R20 Xi; R43 R10
Symbols: Xn: Harmful.

Main hazards Flammable. Harmful by inhalation. May cause sensitisation by skin contact.

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 |
|---|--------------|-----------|-----------|---------------------------|--------------|---|
| Cyclohexanone | 606-010-00-7 | 108-94-1 | 203-631-1 | | 10 - 20% | R10 Xn; R20 |
| Xylene (Xylene, o-,m-,p-or mixed isomers) | 601-022-00-9 | 1330-20-7 | 215-535-7 | | 1 - 10% | R10 Xn; R20/21 Xi; R38 |
| 4,4'-Isopropylidenediphenol | 604-030-00-0 | 80-05-7 | 201-245-8 | | 1 - 10% | Repr. Cat. 3; R62 Xi; R37-41 R43 R52 |
| Ethylbenzene | 601-023-00-4 | 100-41-4 | 202-849-4 | | 1 - 10% | F; R11 Xn; R20 |
| Formaldehyde...% (Formaldehyde) | 605-001-00-5 | 50-00-0 | 200-001-8 | | 0 - 0.5% | Carc. Cat. 3; R40 T; R23/24/25 C; R34 R43 |

SECTION 4: First aid measures

4.1. Description of first aid measures

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4.1. Description of first aid measures

| | |
|--------------|---|
| Inhalation | Harmful by inhalation. Inhalation may cause nausea and vomiting. May cause dizziness and headache. Move the exposed person to fresh air. Seek medical attention. |
| Eye contact | May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist. |
| Skin contact | May cause irritation to skin. May cause dermatitis. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist. |
| Ingestion | Harmful if swallowed. Ingestion may cause nausea and vomiting. Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system. DO NOT INDUCE VOMITING. If swallowed, seek medical advice immediately and show this container or label. |

SECTION 5: Firefighting measures

5.1. Extinguishing media

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| | Use as appropriate: Carbon dioxide (CO ₂), Dry chemical, Foam. |
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5.2. Special hazards arising from the substance or mixture

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| | . Burning produces irritating, toxic and obnoxious fumes. |
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5.3. Advice for firefighters

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| | Wear suitable respiratory equipment when necessary. |
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| | Ensure adequate ventilation of the working area. Eliminate all sources of ignition. Wear suitable protective equipment. |
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6.2. Environmental precautions

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| | 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

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| | Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water. |
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

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| | 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

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| | Keep in a cool, dry, well ventilated area. Keep containers tightly closed. |
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

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| Cyclohexanone | WEL 8-hr limit ppm: 10 | WEL 8-hr limit mg/m ³ : - |
| | WEL 15 min limit ppm: 20 | WEL 15 min limit mg/m ³ : - |
| Ethylbenzene | WEL 8-hr limit ppm: 100 | WEL 8-hr limit mg/m ³ : 441 |
| | WEL 15 min limit ppm: 125 | WEL 15 min limit mg/m ³ : 552 |
| Formaldehyde...% (Formaldehyde) | WEL 8-hr limit ppm: 2 | WEL 8-hr limit mg/m ³ : 2.5 |
| | WEL 15 min limit ppm: 2 | WEL 15 min limit mg/m ³ : 2.5 |
| Xylene (Xylene, o-,m-,p-or mixed isomers) | WEL 8-hr limit ppm: 50 | WEL 8-hr limit mg/m ³ : 220 |
| | WEL 15 min limit ppm: 100 | WEL 15 min limit mg/m ³ : 441 |

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8.2. Exposure controls

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| 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 | Paste |
| Colour | Various colours according to type. |
| Odour | Characteristic |
| Flash point | 25 |

SECTION 10: Stability and reactivity

10.2. Chemical stability

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| | Stable under normal conditions. |
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10.3. Possibility of hazardous reactions

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| | Oxidising agents. |
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10.4. Conditions to avoid

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| | Heat, sparks and open flames. |
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SECTION 11: Toxicological information

11.1.4. Toxicological Information

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| 4,4'-Isopropylidenediphenol | Oral Rat LD50: 4240 mg/kg Dermal Rabbit LD50: 3 mL/kg | Oral Mouse LD50: 2500 mg/kg |
| Cyclohexanone | Oral Rat LD50: 1800 mg/kg Dermal Rabbit LD50: 1 mL/kg | Oral Mouse LD50: 1400 mg/kg |
| Ethylbenzene | Inhalation Rat LC50/2H h: 55000 mg/m3 Inhalation Mouse LC50/2H h: 35500 mg/m3 | Oral Rat LD50: 3500 mg/kg Dermal Rabbit LD50: 17800 uL/kg |
| Formaldehyde...% | Inhalation Rat LC50/2H h: 250 ppm Oral Mouse LD50: 500 mg/kg Dermal Rabbit LD50: 270 mg/kg | Oral Rat LD50: 500 mg/kg Inhalation Mouse LC50/2H h: 505 mg/m3 |

SECTION 12: Ecological information

Further information

| | |
|--|---------------------------------------|
| | Do not allow product to enter drains. |
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SECTION 13: Disposal considerations

General information

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| | Dispose of in compliance with all local and national regulations. |
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SECTION 14: Transport information

Hazard pictograms

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| Hazard pictograms | |
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| 14.1. UN number | |
| | UN1210 |
| 14.2. UN proper shipping name | |
| | PRINTING INK |
| 14.3. Transport hazard class(es) | |
| ADR/RID | 3 |
| Subsidiary risk | - |
| IMDG | 3 |
| Subsidiary risk | - |
| IATA | 3 |
| Subsidiary risk | - |
| 14.4. Packing group | |
| Packing group | III |
| 14.5. Environmental hazards | |
| Environmental hazards | No |
| Marine pollutant | No |
| ADR/RID | |
| Hazard ID | 33 |
| 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 | |
| Labelling | |
| Symbols | The product is classified in accordance with 67/548/EEC. Xn: Harmful. |
| |  |
| Risk phrases | R10 - Flammable. R20 - Harmful by inhalation. R43 - May cause sensitisation by skin contact. |
| Safety phrases | S24 - Avoid contact with skin. S37 - Wear suitable gloves. |
| SECTION 16: Other information | |

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Other information

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| 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. R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed. R34 - Causes burns. R37 - Irritating to respiratory system. R38 - Irritating to skin. R40 - Limited evidence of a carcinogenic effect. R41 - Risk of serious damage to eyes. R43 - May cause sensitisation by skin contact. R52 - Harmful to aquatic organisms. R62 - Possible risk of impaired fertility. |
|--|--|

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. |
| HMIS LABELLING | HEALTH 1, FLAMMABILITY 3, PHYSICAL HAZARD 0. PERSONAL PROTECTION : C. |