
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: Chameleon Epoxy Screen Ink

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

- Use of the substance/mixture: Manufacture of temperature-indicating products and temperature-sensitive decorative effects., For professional use only.

1.3 Details of the supplier of the safety data sheet

- Name of Supplier: LCR Hallcrest
- Address of Manufacturer: Riverside Buildings,
Dock Road,
Connah's Quay,
Deeside,
Flintshire, CH5 4DS,
Wales. U.K.
- Telephone: +44 (0) 1244 817107
- Email: Sales@lcrhallcrest.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: Skin Sens. 1, Skin Irrit. 2, Eye Irrit. 2

2.2 Label elements



- Signal Word: Warning
- Hazard statements
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May cause an allergic skin reaction.
- Precautionary statements
 - Avoid breathing dust/fume/gas/mist/vapours/spray.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - 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 skin irritation or rash occurs: Get medical advice/attention.
 - Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

SECTION 2: Hazards identification (....)

- Contains: 4,4'-(1-methylethylidene)bis-polymer with 2,2'-[(1-methethyidene)bis(4,1-phenylene oxymethylene)]bis(oxirane)](Blspenol A copolymer)
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SECTION 3: Composition/information on ingredients

3.2 Mixtures

- Color developer
 - CAS Number: Proprietary
 - EC Number: Proprietary
 - Concentration: 2-5%
 - Categories: Skin Irrit. 2, Eye Irrit. 2, STOT SE 3
 - Symbols: WARNING
 - H Statements: H319, H315, H335
- 4,4'-(1-methylethylidene)bis-polymer with 2,2'-[(1-methethyidene)bis(4,1-phenylene oxymethylene)]bis(oxirane)](Blspenol A copolymer)
 - CAS Number: 25036-25-3
 - EC Number:
 - Concentration: 35-40%
 - Categories: Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1
 - Symbols: GHS07
 - H Statements: H315;H317;H319
 - Water Hazard Class (Company): Not hazardous
- Dipropylene Glycol MonomethylEther
 - CAS Number: 34590-94-8
 - EC Number: 252-104-2
 - Concentration: 8-12%
 - Categories: Not classified as hazardous for supply
 - Symbols:
 - H Statements:
- 4-hydroxy-4-methylpentan-2-one; diacetone alcohol
 - CAS Number: 123-42-2
 - EC Number: 204-626-7
 - Concentration: 3-7%
 - Categories: Eye Irrit. 2
 - Symbols: GHS07
 - H Statements: H319
 - Water Hazard Class (Official): 1
- 1-methoxy-2-propanol; monopropylene glycol methyl ether
 - CAS Number: 107-98-2
 - EC Number: 203-539-1
 - Concentration: 3-7%
 - Categories: Flam. Liq. 3, STOT SE 3
 - Symbols: GHS02;GHS07
 - H Statements: H226;H336
 - Water Hazard Class (Official): 1

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

- 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve
 - CAS Number: 111-76-2
 - EC Number: 203-905-0
 - Concentration: 1-4%
 - Categories: Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2

 - Symbols: GHS07
 - H Statements: H332;H312;H302;H315;H319
 - Silica, amorphous fumed (crystalline free)
 - Water Hazard Class (Official): 1
 - CAS Number: 112945-52-5
 - EC Number: 601-216-3
 - Concentration: 1-4%
 - Categories: Skin Irrit. 2, Eye Irrit. 2, STOT SE 3
 - Symbols: GHS07
 - H Statements: H315;H319;H335
 - Water Hazard Class (Company): Not hazardous
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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.
 - If eye irritation persists: Get medical advice/attention.
- Contact with skin
 - IF ON SKIN: Wash with plenty of soap and water.
 - If skin irritation occurs: Get medical advice/attention.
 - If skin irritation or rash occurs: Get medical advice/attention.
- Ingestion
 - Do NOT induce vomiting.
 - Call a POISON CENTER or doctor/physician.
- Inhalation
 - If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Apply artificial respiration only if patient is not breathing
 - IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

SECTION 5: Firefighting measures (....)

- Use as appropriate: Carbon dioxide (CO₂), Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

- Burning produces obnoxious and irritating fumes.

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
- Wear protective clothing as per section 8

6.2 Environmental precautions

- Avoid release to the environment.
- Do not empty into drains

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 an authorised waste collection point

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed, in a cool, well ventilated place

7.3 Specific end use(s)

- Use a suitable barrier cream to protect skin
 - 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.
 - Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Component	European Union	The United Kingdom	France	Spain	Germany
Propylene glycol monomethyl ether		STEL: 150 ppm STEL: 560 mg/m ³ TWA: 100 ppm TWA: 375 mg/m ³ Skin	TWA/VME: 50 ppm (restrictive limit) TWA/VME: 188 mg/m ³ (restrictive limit) STEL/VLCT: 100 ppm (restrictive limit) STEL/VLCT: 375 mg/m ³ (restrictive limit) Skin	STEL/VLA-EC: 150 ppm STEL/VLA-EC: 568 mg/m ³ TWA/VLA-ED: 100 ppm TWA/VLA-ED: 375 mg/m ³ Skin	TWA/MAK: 100 ppm TWA/MAK: 370 mg/m ³ Peak: 200 ppm Peak: 740 mg/m ³ TWA/AGW: 100 ppm TWA/AGW: 370 mg/m ³
2-Butoxyethanol		STEL: 50 ppm STEL: 246 mg/m ³ TWA: 25 ppm TWA: 123 mg/m ³ Skin	TWA/VME: 2 ppm (indicative limit) TWA/VME: 9.8 mg/m ³ (indicative limit) STEL/VLCT: 30 ppm (indicative limit) STEL/VLCT: 147.6 mg/m ³ (indicative limit) Skin	STEL/VLA-EC: 50 ppm STEL/VLA-EC: 245 mg/m ³ TWA/VLA-ED: 20 ppm TWA/VLA-ED: 98 mg/m ³ Skin	TWA/MAK: 10 ppm TWA/MAK: 49 mg/m ³ Peak: 20 ppm Peak: 98 mg/m ³ TWA/AGW: 20 ppm TWA/AGW: 98 mg/m ³ Skin
Diacetone alcohol		STEL: 75 ppm STEL: 362 mg/m ³ TWA: 50 ppm TWA: 241 mg/m ³	TWA/VME: 50 ppm TWA/VME: 240 mg/m ³	TWA/VLA-ED: 50 ppm TWA/VLA-ED: 241 mg/m ³	TWA/MAK: 20 ppm TWA/MAK: 96 mg/m ³ Peak: 40 ppm Peak: 192 mg/m ³ TWA/AGW: 20 ppm TWA/AGW: 96 mg/m ³ Skin
Dipropylene Glycol Monomethyl Ether		STEL: 150 ppm STEL: 924 mg/m ³ TWA: 50 ppm TWA: 308 mg/m ³ Skin	TWA/VME: 50 ppm (restrictive limit) TWA/VME: 308 mg/m ³ (restrictive limit) Skin	TWA/VLA-ED: 50 ppm TWA/VLA-ED: 308 mg/m ³ Skin	TWA/MAK: 50 ppm TWA/MAK: 310 mg/m ³ (mixture of isomers) Peak: 50 ppm (mixture of isomers) Peak: 310 mg/m ³ (mixture of isomers) TWA/AGW: 50 ppm TWA/AGW: 310 mg/m ³

Component	Austria	Switzerland	Poland	Norway	Ireland
Propylene glycol monomethyl ether	STEL/KZW: 50 ppm STEL/KZW: 187 mg/m ³ TWA/TMW: 50 ppm TWA/TMW: 187 mg/m ³ Ceiling: 50 ppm Ceiling: 187 mg/m ³ Skin	STEL/KZW: 200 ppm STEL/KZW: 720 mg/m ³ TWA/MAK: 100 ppm TWA/MAK: 360 mg/m ³	NDSch: 360 mg/m ³ TWA/NDS: 180 mg/m ³	TWA: 50 ppm TWA: 180 mg/m ³ Skin	TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 568 mg/m ³
2-Butoxyethanol	STEL/KZW: 40 ppm STEL/KZW: 200 mg/m ³ TWA/TMW: 20 ppm TWA/TMW: 98 mg/m ³ Skin	STEL/KZW: 20 ppm STEL/KZW: 98 mg/m ³ TWA/MAK: 10 ppm TWA/MAK: 49 mg/m ³ Skin	NDSch: 200 mg/m ³ TWA/NDS: 98 mg/m ³ Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Skin
Silica, amorphous fumed (crystalline free)	TWA/TMW: 4 mg/m ³ (inhalable fraction)				
Diacetone alcohol	TWA/TMW: 50 ppm TWA/TMW: 240 mg/m ³ Skin	STEL/KZW: 40 ppm STEL/KZW: 192 mg/m ³ TWA/MAK: 20 ppm TWA/MAK: 96 mg/m ³ Skin	TWA/NDS: 240 mg/m ³	TWA: 25 ppm TWA: 120 mg/m ³	TWA: 50 ppm TWA: 240 mg/m ³ STEL: 75 ppm STEL: 360 mg/m ³
Dipropylene Glycol Monomethyl Ether	STEL/KZW: 100 ppm STEL/KZW: 614 mg/m ³ (isomers mixtures) TWA/TMW: 50 ppm TWA/TMW: 307 mg/m ³ (mixed isomers) Skin	STEL/KZW: 50 ppm STEL/KZW: 300 mg/m ³ TWA/MAK: 50 ppm TWA/MAK: 300 mg/m ³	NDSch: 480 mg/m ³ TWA/NDS: 240 mg/m ³	TWA: 50 ppm TWA: 300 mg/m ³ Skin	TWA: 50 ppm TWA: 308 mg/m ³ Skin

8.2 Exposure controls

- Appropriate engineering controls
Ensure adequate ventilation
- Personal protective equipment
Wear suitable protective clothing, including eye/face protection and gloves (PVC are recommended)
- Eye / face protection
Safety goggles with lateral shielding (DIN EN 166)
- Skin protection - hand protection
Wear nitrile gloves

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

- Respiratory protection
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Liquid
- Colour: Various
- Odour: Characteristic odour
- pH: not known
- Upper Explosive Limit: No information available
- Specific gravity: 0.95 - 1.1 g/cm³
- Water solubility: not known
- Boiling Point/Range: >149°C
- Flashpoint: 52°C / 125°F
- Fat solubility: not known
- Auto-ignition point: not known
- Vapour density: not known
- Vapour pressure: not known
- Viscosity: not known
- Water solubility: No information available

9.2 Other information

- No information available
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SECTION 10: Stability and reactivity

10.1 Reactivity

- No information available

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

- Avoid sources of ignition

10.5 Incompatible materials

- Avoid contact with acids and alkalis
- Avoid contact with oxidising substances
- Avoid contact with reducing agents

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

SECTION 11: Toxicological information (....)

- Acute toxicity
- Dipropylene Glycol MonomethylEther
 - LD50 (oral, rat): 5230 mg/kg
 - LD50 (dermal, rabbit): 9500 mg/kg
- 4-hydroxy-4-methylpentan-2-one; diacetone alcohol
 - LD50 (oral, rat): 4 g/kg
 - LD50 (dermal, rabbit): 13500 mg/kg
- 1-methoxy-2-propanol; monopropylene glycol methyl ether
 - LD50 (oral, rat): 5200 mg/kg
 - LD50 (dermal, rabbit): 13000 mg/kg
 - LC50 (inhalation, rat): 4 hr: 54.6 mg/L
- 2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve
 - LD50 (oral, rat): 470 mg/kg
 - LD50 (dermal, rabbit): 220 mg/kg
 - LC50 (inhalation, rat): 2.21 mg/L (Rat) 4 h
- Silica, amorphous fumed (crystalline free)
 - LD50 (oral, rat): 3160 mg/kg
 - Skin corrosion/irritation
 - May cause irritation to skin
 - Serious eye damage/irritation
 - Irritating to eyes
 - Respiratory or skin sensitisation
 - May cause an allergic skin reaction.
 - Germ cell mutagenicity
 - No information available
 - Carcinogenicity
 - No information available
 - Reproductive toxicity
 - No information available
 - STOT-single exposure
 - No information available
 - STOT-repeated exposure
 - No information available
 - Aspiration hazard
 - No information available

SECTION 12: Ecological information

12.1 Toxicity

- We have no quantitative data concerning the ecological effects of this product. Environmental fate information is derived from consideration of the properties of the ingredients.

12.2 Persistence and degradability

- No information available

SECTION 12: Ecological information (....)

12.3 Bioaccumulative potential

- No information available

12.4 Mobility in soil

- No information available

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 collection point.
 - Observe all federal, state and local regulations when disposing of the substance.
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SECTION 14: Transport information



14.1 UN number

- UN No.: 1210

14.2 Proper Shipping Name

- Proper Shipping Name: PRINTING INK

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

SECTION 15: Regulatory information (....)

- 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): 1

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:- H226: Flammable liquid and vapour. H302: Harmful if swallowed. 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. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness.

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 ---
