
SAFETY DATA SHEET

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

1.1 Product identifier

- Product Name: Hydrochromic Solvent Based Flexo Ink

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

- Use of the substance/mixture: Water activated colour change printing ink

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: Flam. Liq. 2, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 2

2.2 Label elements



- Signal Word: Danger
- Hazard statements
 - May cause respiratory irritation.
 - Causes skin irritation.
 - Causes serious eye irritation.
 - Toxic to aquatic life with long lasting effects.
- Precautionary statements
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - Store in a well-ventilated place. Keep container tightly closed.
 - 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.
 - Avoid release to the environment.

2.3 Other hazards

SECTION 3: Composition/information on ingredients

3.2 Mixtures

- Hydrochromic Pigment A
 - CAS Number: Proprietary
 - EC Number: Proprietary
 - Concentration: 15-25%
 - Categories: Skin Irrit. 2, Eye Irrit. 2, STOT SE 3
 - H Statements: H315, H319, H355
- Hydrochromic Pigment B
 - CAS Number: Proprietary
 - EC Number: Proprietary
 - Concentration: 15-25%
 - Categories: Acute Tox. 4, Eye Irrit. 2
 - H Statements: H302; H318; H410
- propan-2-ol; isopropyl alcohol; isopropanol
 - CAS Number: 67-63-0
 - EC Number: 200-661-7
 - Concentration: 10-20%
 - Categories: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3
 - H Statements: H225;H336;H319
 - Symbols: GHS02;GHS07
- acetone; propan-2-one; propanone
 - CAS Number: 67-64-1
 - EC Number: 200-662-2
 - Concentration: 10-20%
 - Categories: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3
 - H Statements: H225;H336;H319;EUH066
 - Symbols: GHS02;GHS07
- ethyl acetate
 - CAS Number: 141-78-6
 - EC Number: 205-500-4
 - Concentration: 2-7%
 - Categories: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3
 - H Statements: H225;H336;H319;EUH066
 - Symbols: GHS02;GHS07

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.

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 occurs: Get medical advice/attention.
 - Call a POISON CENTRE or doctor if you feel unwell.
- Ingestion
 - Call a POISON CENTRE or doctor if you feel unwell.
- Inhalation
 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - Call a POISON CENTRE or doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- May cause severe irritation
- Irritating to skin
- May cause gastro-intestinal disturbances
- Irritating to respiratory system
- May cause shortness of breath

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.
- Treat symptomatically

SECTION 5: Firefighting measures

5.1 Extinguishing media

- In case of fire: Use foam, dry powder or CO2 to extinguish.

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

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

- Collect spillage.
- Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly.
- Dispose of contents to a hazardous or special waste collection point

6.4 Reference to other sections

- For disposal refer to section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- 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.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Call a POISON CENTRE or doctor if you feel unwell.

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)

- Avoid sources of ignition
 - 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

- acetone; propan-2-one; propanone
WEL: 8-hr limit ppm: 500
- ethyl acetate
WEL: 8-hr limit ppm: 200
- propan-2-ol; isopropyl alcohol; isopropanol
WEL: 8-hr limit ppm: 400

8.2 Exposure controls



- Appropriate engineering controls: Ensure adequate ventilation of work place
 - Wear suitable protective clothing, including eye/face protection and gloves (PVC are recommended)
 - Safety goggles with lateral shielding (DIN EN 166)
 - Skin Protection - Hand Protection: Chemical resistant gloves DIN EN 374-3
 - 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 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Liquid
 - Colour various
 - Odour: Aromatic odour
 - Flashpoint: 15°C
 - Lower Explosive Limit: No information available
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SECTION 9: Physical and chemical properties (....)

- Lower Flammable Limit: No information available
- Partition coefficient : n-Octanol/water - not known
- pH - not known
- Specific gravity: 0.95-1.0 g/cm³
- Vapour density - not known
- Vapour pressure - not known
- Water solubility: Partially soluble in water

9.2 Other information

- No information available
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SECTION 10: Stability and reactivity

10.1 Reactivity

- Avoid 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

- Avoid sources of ignition

10.5 Incompatible materials

- No information available

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

- acetone; propan-2-one; propanone
LC50 (inhalation, rat): 50100 mg/m³ 8hr
LD50 (oral, rat): 5800 mg/kg
LD50 (oral, mouse): 3g/kg
LC50 (inhalation) : (mouse 4 hr) 44 gm/m³
 - ethyl acetate
LD50 (oral, rat): 5620 mg/kg
LD50 (oral, mouse): 4100 mg/kg
LC50 (inhalation) : (mouse 2H h) : 45 gm/m³
LD50 (dermal, rabbit): >20mL/kg
 - Hydrochromic Pigment A
LD50 (oral, rat): 100mg/kg
 - Hydrochromic Pigment B
LD50 (oral, rat): 794 mg/kg
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SECTION 11: Toxicological information (....)

LD50 (oral, mouse): 287 mg/kg

- propan-2-ol; isopropyl alcohol; isopropanol
LD50 (oral, rat): 5000 mg/kg
LD50 (oral, mouse): 3600 mg/kg
LD50 (dermal, rabbit): 12800 mg/kg
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SECTION 12: Ecological information

12.1 Toxicity

- Hydrochromic Pigment B
LC50 (fish): 0.98 mg/l (96 hr)

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

- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
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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.: 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: II
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SECTION 14: Transport information (....)

14.5 Environmental hazards

- Marine Pollutant
- ENVIRONMENTALLY HAZARDOUS

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

15.2 Chemical safety assessment

- A chemical safety assessment (CSA) for this product has not yet been completed
 - 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:-
EUH066: Repeated exposure may cause skin dryness or cracking. H225: Highly flammable liquid and vapour. H302: Harmful if swallowed. H315: Causes skin irritation. H318: Causes serious eye damage. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H410: Very toxic to aquatic life with long lasting effects.

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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