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**SAFETY DATA SHEET**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

- Product Name: Water Based Hydrochromic Ink

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

- Use of the substance/mixture: Ink

**1.3 Details of the supplier of the safety data sheet**

- Name of Supplier: LCR Hallcrest
- Address of Supplier: Riverside Buildings, Dock Road, Connah's Quay, Deeside, Flintshire, Wakes. CH5 4DS
- Telephone: +44 (0) 1244 817107
- Email: Sales@lcrhallcrest.com

**1.4 Emergency telephone number**

- Emergency Telephone: +44 (0) 1244 817348
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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

- CLP: Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Aquatic Chronic 2

**2.2 Label elements**

- Signal Word: Warning
- 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.
  - Dispose of contents/container to

**2.3 Other hazards**

## SECTION 2: Hazards identification (....)

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## 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:  
Concentration: 15 - 25%  
Categories: Acute Tox. 4, Eye Irrit. 2  
H Statements: H302, H318, H400, H410
  - propan-2-ol; isopropyl alcohol; isopropanol  
CAS Number: 67-63-0  
EC Number: 200-661-7  
Concentration: 1 - 5 % (Flexo Inks only)  
Categories: Flam. Liq. 2, Eye Irrit. 2, STOT SE 3  
H Statements: H225;H336;H319  
Symbols: GHS02;GHS07
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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.
- Contact with skin  
IF ON SKIN: Wash with plenty of soap and water.  
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

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

- May cause irritation
- In cases of severe exposure, gastro-intestinal disturbances may develop

### 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

- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

### 5.2 Special hazards arising from the substance or mixture

- May give off noxious and toxic fumes in a fire

### 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.

### 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 with plenty of water.

### 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
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Call a POISON CENTRE or doctor if you feel unwell.
- Dispose of contents/container to hazardous waste

### 7.2 Conditions for safe storage, including any incompatibilities

- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.

### 7.3 Specific end use(s)

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## SECTION 7: Handling and storage (...)

- No information available
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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

- propan-2-ol; isopropyl alcohol; isopropanol  
WEL: 8-hr limit ppm: 400

### 8.2 Exposure controls



- Wear protective gloves/protective clothing/eye protection/face protection.
  - Ensure adequate ventilation
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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- Appearance: Liquid
- colour Various
- Odour: Pungent, acetic odour
- Odour threshold: unkown mg/m<sup>3</sup>
- pH: 3 - 4
- Melting point - not known
- Freezing point/Range:
- Boiling point - not known
- Flash point - not applicable
- Evaporation rate - not known
- Flammability: Not flammable
- Vapour pressure - not known
- Vapour density - not known
- Specific gravity: 1.2 g/cm<sup>3</sup>
- Fat solubility - not known
- Partition coefficient : n-Octanol/water - not known
- Auto-ignition point - not known
- Viscosity - not known
- Explosive Properties: Not explosive
- Oxidising Properties: No information available
- Solubility in water: Miscible with water
- Volatile Organic Compound Content 33g/l

### 9.2 Other information

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## SECTION 10: Stability and reactivity

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

### 10.1 Reactivity

- No hazardous reactions known if used for its intended purpose

### 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

- No special requirements

### 10.5 Incompatible materials

- No special requirements

### 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

- Acute toxicity: No data is available on this product.
  - Skin corrosion/irritation: May cause irritation to skin.
  - Serious eye damage/irritation: No data available
  - Respiratory or skin sensitisation: No data available.
  - Germ cell mutagenicity - No data is available on this product
  - IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
  - Reproductive Effects: No data available
  - STOT-repeated exposure: No data is available on this product.
  - STOT-single exposure: No data is available on this product.
  - Aspiration hazard: No data is available on this product.
  - Repeated or prolonged exposure :No data is available on this product.
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## SECTION 12: Ecological information

### 12.1 Toxicity

- Hydrochromic Pigment B
  - IC50 (algae): Unknown mg/l (72 hr)
  - EC50 (daphnia): Unknown mg/l (48 hr)
  - LC50 (fish): 0.98 mg/l (96 hr)

### 12.2 Persistence and degradability

- No information available

### 12.3 Bioaccumulative potential

- No information available
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## SECTION 12: Ecological information (....)

### 12.4 Mobility in soil

- miscible with water

### 12.5 Results of PBT and vPvB assessment

- No information available

### 12.6 Other adverse effects

- Hazardous to the environment
  - May cause long-term adverse effects in the environment
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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Dispose of contents/container to hazardous waste collection point.
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## SECTION 14: Transport information



### 14.1 UN number

- UN No.: 3082

### 14.2 Proper Shipping Name

- Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
( ZINC SOLUTION )

### 14.3 Transport hazard class(es)

- Hazard Class: 9

### 14.4 Packing group

- Packing Group: III

### 14.5 Environmental hazards

- Marine Pollutant
- ENVIRONMENTALLY HAZARDOUS

### 14.6 Special precautions for user

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

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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

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## SECTION 15: Regulatory information (....)

- 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. H302: Harmful if swallowed. H315: Causes skin irritation. H318: Causes serious eye damage. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H400: Very toxic to aquatic life. 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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