
SAFETY DATA SHEET

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: 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: +1 847 998 8580

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.

SECTION 2: Hazards identification (....)

Dispose of contents/container to

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

Call a POISON CENTRE or doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- 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

SECTION 7: Handling and storage (...)

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

7.3 Specific end use(s)

- 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: unknown mg/m³
- 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/cm³
- 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

SECTION 9: Physical and chemical properties (....)

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
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SECTION 12: Ecological information (....)

12.3 Bioaccumulative potential

- No information available

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

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) 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. 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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