

SAFETY DATA SHEET Irreversible Thermochromic Ink - NH

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MSDS004 Revision 4
Revision Date 05/27/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name Irreversible Thermochromic Ink – NH

Additional Names Ranges: Black K170-NH, Black K115-NH, BlackK90-NH, Black K75-NH, Black K60-NH, MB50Y-NH, MB60-NH, Magenta K65-NH, Magenta K75-NH, Magenta K90-NH, Magenta K100-NH, Magenta K120-NH, Magenta K200-NH, Blue K150-NH, Turquoise K150-NH.

Description Off-white liquid

Intended Use Temperature measurement and thermal mapping
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2. HAZARDS IDENTIFICATION.

GHS Classification

Aquatic Chronic 3: H412
For full text of the H-Statements see Section 16.

GHS Label Elements

Pictogram No symbol

Signal Word No Signal Word

Hazard Statement H412 – Harmful to aquatic life with long lasting effects

Precautionary Statements P273 – Avoid release to the environment

P501 – Dispose of contents/container in accordance with regulations.

Other hazards which do not result in classification: None

3. COMPOSITION / INFORMATION ON INGREDIENTS.

Hazardous ingredients	Classification	Conc.	CAS
Urea derivative	Aquatic Chronic 2: H411	20-30%	
Heterocyclic Dye (Black Kromagen Ranges only)	Aquatic Chronic 3: H412	1-10%	
Isopropanol	Flam. Liq. 2 H225; Eye Irrit. 2: H319; STOT SE 3: H336;	1-10%	67-63-0

4. FIRST AID MEASURES

Description of first aid measures

Skin contact Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.

Eye contact Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist..

Inhalation Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention.

Ingestion Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITTING

Most important symptoms and effect, both acute or delayed.

Skin contact May cause irritation to the skin

Eye contact May cause irritation to the eyes.

Inhalation May cause irritation to the respiratory system.
Indication of any immediate medical attention and special treatment needed.
Skin contact Seek medical attention if irritation or symptoms persist.
Eye contact Seek medical attention if irritation or symptoms persist.
Inhalation Seek medical attention if irritation or symptoms persist.
Ingestion Seek medical attention if irritation or symptoms persist.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use as appropriate: carbon dioxide (CO2), dry chemical, foam.
Specific hazards arising from the chemical Burning produces irritating, toxic and obnoxious fumes.
Special protective actions for fire-fighters Wear suitable respiratory equipment when necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, protective equipment and emergency procedures Ensure adequate ventilation of the working area. Wear suitable protective equipment.
Environmental Precautions Do not allow product to enter drains. Prevent further spillage if safe.
Methods and material for containment and cleaning up Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Individual protection measures Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best Manual Handling considerations when handling, carrying and dispensing
Conditions for safe storage, including incompatibilities: Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits Values

Isopropanol	WEL 8-hr limit PPM	400	WEL 8-hr limit mg/m3	999
	WEL 15 min limit ppm	500	WEL 15 min limit mg/m3	1250

Individual Protection Measures

Individual protection measures Wear chemical protective clothing.
Eye/face protection Approved safety goggles
Skin protection – Hand protection Chemical resistant gloves (PVC).
Respiratory protection Wear suitable respiratory equipment.
Appropriate Engineering Controls Ensure adequate ventilation of the working area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Liquid
Colors Off white
Odor Characteristic
Odor threshold N/A
pH N/A
Melting Point/Freezing Point No testing available.
Initial Boiling Point and Boiling Range 100°C
Flash Point No testing available.
Evaporation rate No testing available.
Flammability No testing available.
Upper/Lower Flammability or Explosive Limits No testing available.
Vapor Pressure No testing available.
Specific Gravity 0.95 – 1.1

10. STABILITY AND REACTIVITY

Reactivity No significant hazard
Chemical Stability Stable under normal conditions
Possibility of hazardous reactions No significant hazard
Conditions to avoid No significant hazard
Incompatible materials Keep away from food, drink and animal feedingstuffs.
Hazardous Decomposition Products Burning produces obnoxious and irritating fumes.

11. TOXICOLOGICAL INFORMATION

Toxicological Information		
Isopropanol	Oral Rate LD50 : 5000mg/kg Dermal Rabbit LD50:12800 mg/kg	Oral Mouse LD50: 3600 mg/kg

Skin corrosion/irritation No test data available
Serious eye damage/irritation No test data available
Respiratory or skin sensitization No test data available
Germ cell mutagenicity No test data available
Carcinogenicity No test data available
Reproductive toxicity No test data available
STOT-single exposure No test data available
STOT-repeat exposure No test data available
Aspiration hazard No test data available
Likely routes to exposure No data available

12. ECOLOGICAL INFORMATION

Toxicity No data is available on this product.
Persistence and degradability No data available
Bioaccumulative potential No data available
Mobility in soil No data available
Other adverse effects No data available

13. DISPOSAL CONSIDERATIONS

General information Dispose of in compliance with all local and national regulations.

14. TRANSPORT INFORMATION

UN Number This product is not classified as dangerous for carriage.
UN Proper Shipping Name This product is not classified as dangerous for carriage.
Transport Hazard class(es) This product is not classified as dangerous for carriage.
Packing Group (if applicable) This product is not classified as dangerous for carriage.
Environmental Hazards This product is not classified as dangerous for carriage.
Special Precautions for the User This product is not classified as dangerous for carriage.
DOT This product is not classified as dangerous for carriage.
IMDG This product is not classified as dangerous for carriage.
IATA This product is not classified as dangerous for carriage.
Further Information For this product a chemical safety assessment was not carried out.

15. REGULATORY INFORMATION

Inventories									
Ingredient	TSCA	MA	SARA313	CALPROP65	CWA307	CAA112	CWA311	SARA302	SARA304
Isopropanol	Y	Y	Y1.0	N	N	N	N	N	N

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.

16. OTHER INFORMATION

Statement of Hazard	Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects. Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects. Flam. Liq. 2: H225 - Highly flammable liquid and vapour. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H336 - May cause drowsiness or dizziness.
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 0, FLAMMABILITY 0, PHYSICAL HAZARD 0.
Revision History	Revision 4: Major revision to include the requirements of the HCS/HazCom 2012 Final Rule. Formaldehyde was removed from the SDS because it is below the reportable limit of 0.1%..