

MSDS

Material Safety Data Sheet

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Ink Cartridge (Y) (H086038-00)

MSDS Number: MSDSH086038-00-03-OT-E--- *Effective Date: 11/13/2009*

1. Product Identification

Product Name: Ink Cartridge (Y) (H086038-00)
Synonyms: None
Use: Inkjet Printing Ink

2. Hazards Identification

2.1 Emergency Overview:

This ink does not meet the criteria for dangerous classification according to EU Directive 1999/45/EC. Ink component is a yellow liquid that may cause eye irritation. Avoid contact with eyes or clothing. In the case of skin contact, wash with soap and water. Keep out of reach of children.

2.2 Potential Health Effects:

Eyes: Ink contact with eye may be mildly irritating. See Section 11 for toxicology.

Skin: Ink contact with skin may cause irritation, swelling, or redness. See Section 11 for toxicology.

Inhalation: Intentional exposure to ink vapors (mist) will cause respiratory irritation. See Section 11 for toxicology.

Ingestion: May cause upset stomach.

3. Composition Information

This is an aqueous ink formulation.

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Proprietary dyes/pigments	Trade secret	Trade secret	Not available for the moment	about 5	None	None	None	None
Proprietary organic material	Trade secret	Trade secret	Not available for the moment	5 – 10	None	None	None	None
Glycerol	Trade secret	Trade secret	Not available for the moment	10 – 15	None	None	None	None
Ethylene glycol	107-21-1	203-473-3	Not available for the moment	1 – 5	Xn	R22	52mg/m ³ 20ppm	None

Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None

4. First Aid Measures

- 4.1 Eyes:** Immediately flush with room temperature, low pressure and clean water for at least 15 minutes. Seek medical attention if eye irritation continues.
- 4.2 Skin:** Wash surface areas with soap and water. Wash soiled clothing before wearing again. Consult a physician if irritation continues.
- 4.3 Inhalation:** Remove subject to ventilated fresh air. If not breathing, give artificial respiration right away. If breathing is difficult, give oxygen. Seek immediate medical attention.
- 4.4 Ingestion:** Seek medical advise; and attention if stomach continues to be upset.

5. Fire Fighting Measures

- 5.1 Flammability:** Not flammable
- 5.2 Extinguishing Media:** Dry chemical or carbon dioxide
- 5.3 Fire Fighting Instructions:** No special fire fighting procedures are required other than breathing apparatus. No special explosion hazards are known.

6. Accidental Release Measures

- 6.1 Personal precautions:** Eye or Skin protection required during clean-up. Use proper ventilation.
- 6.2 Environmental precautions:** Do not release to sewer, surface- or ground-water.
- 6.3 Methods for cleaning up:** If a spill occurs, use sponges to wipe-up ink, then rinse area with damp cloth. Place waste in closed container for disposal. Do not dispose of waste to the sewer. Wash hands with soap and water.

7. Handling and Storage

- 7.1 Handling:** Keep out of reach of children and do not drink ink. Do not dismantle cartridge.
- 7.2 Storage:** Do not store the cartridge in high or freezing temperatures. Keep cartridge out of direct sunlight. Do not store cartridges with oxidizing agents or explosives. Make sure cartridge is dry before insertion into printer housing.
- 7.3 Specific use(s):** Not specified

8. Exposure Controls and Personal Protection

- 8.1 Exposure limit values:** Not established

EU:

Ethylene glycol (CAS No, 107-21-1)

The Threshold Limit is : 52 mg/m³

The Threshold Limit is : 20 ppm

The STEL is : 104 mg/m³

The STEL is : 40 ppm

US: ACGIH Threshold Limit Values (2008)

Ethylene glycol (CAS No, 107-21-1), AEROSOL ONLY

The Ceiling Exposure Limit is : 100 mg/m³

US: OSHA Table Z-1-A (29 CFR 1910.1000)(Revoked June 30,1993)

Ethylene glycol (CAS No, 107-21-1)

OSHA ceiling concentration is : 50 ppm

OSHA ceiling concentration is : 125 mg/m³

Australia: OELs

Ethylene glycol (CAS No, 107-21-1), VAPOUR

The Time Weighted Average is : 20 ppm

The Time Weighted Average is : 52 mg/m³

The Short Term Exposure Limit is : 40 ppm

The Short Term Exposure Limit is : 104 mg/m³

8.2 Exposure Controls:

8.2.1 Occupational exposure control

Proper ventilation, in prevention

8.2.1.1 Respiratory protection

Not required under suitable use as setting the cartridge on the printer.

8.2.1.2 Hand protection

Not required under suitable use as setting the cartridge on the printer.

8.2.1.3 Eye protection

Not required under suitable use as setting the cartridge on the printer.

8.2.1.4 Skin protection

Not required under suitable use as setting the cartridge on the printer.

8.2.2 Environmental exposure control

Not established

9. Physical and Chemical Properties of Ink Formulation

9.1 General information

Appearance: Yellow liquid.

Odor: Slightly.

9.2 Important health, safety and environmental information

pH: 8.6~10.0 at 20°C/ 68 °F

Boiling point: No data available

Flash point: Not detected until 95°C / 203 °F (closed cup, ASTM D3278)

Flammability(solid, gas): Not applicable

Explosive properties: None

Oxidizing properties: None

Vapor density: No data available

Relative density: 1.06 at 20°C / 68°F

Solubility: No data available

Water solubility: Complete

Partition coefficient: n-octanol/water : No data available

Viscosity: Less than 5 mPa · s

Vapor density: No data available

Evaporation rate: No data available

9.3 Other information

Melting point: No data available

10. Stability and Reactivity

Stability: Stable under normal temperature

Hazardous Polymerization: No data available

10.1 Conditions to avoid: High and freezing temperatures

10.2 Materials to avoid: Oxidizers and explosives

10.3 Hazardous decomposition products: None under normal temperature

11. Toxicological and Health Hazards

*Based on toxicology data of chemically similar material

Routes of Overexposure: Eye, skin, inhalation, and oral

Acute Health Hazards:

- Overexposure of eye surface to ink may be mildly irritating
- Overexposure of skin to ink contact may cause irritation and in some people swelling and redness
- Intentional inhalation overexposure to ink vapors may result in respiratory tract irritation
- Intentional or accidental oral ingestion may cause an upset stomach

Chronic Health Hazards: None known

Mutagenicity: Negative (by Ames test)*

Carcinogenicity: Not contain any substances listed in IARC Monographs(Group 1,2A and 2B) and Annex I of (67/548/EEC) for the ingredients of the ink.

Toxicity Data: Oral LD₅₀: >2500mg/kg (Rats) *

Dermal LD₅₀: >2000mg/kg (Rats) *

Inhalant LC₅₀: Not applicable

Eye irritating: Minimal irritant (Rabbits, OECD405) *

Skin irritation: Mild irritant (Rabbits, OECD 404) *

Skin sensitizing: Non-sensitizing (Guinea pig, OECD 406) *

12. Ecological Information

12.1 Ecotoxicity: No data available on the adverse effects of this ink on the environment

12.2 Mobility: No data available on the adverse effects of this ink on the environment

12.3 Persistence and degradability: No data available on the adverse effects of this ink on the environment

12.4 Bioaccumulative potential: No data available on the adverse effects of this ink on the environment

12.5. Result of PBT assessment: Has not carried out PBT assessment

12.6. Other adverse effects: No data available

13. Disposal Considerations

Disposal should be in accordance with federal, state, and local requirements.

14. Transport Information

UN Class/UN Number: Not applicable

Dot, IMO, or IATA: Not hazardous classification

15. Regulatory Considerations

EU information:

Chemical Safety Assessment according to (EC)1907/2006:

This ink has not carried out any Chemical Safety Assessment yet.

Symbols and indication according to 1999/45/EC:

This ink does not meet the criteria for classification as dangerous.

US information:

TSCA Section 4(a) Final Test Rules Regulated: Not regulated

TSCA Section 8(a) Preliminary Assessment Information Rule(PAIR): Not regulated

TSCA Section 8(a) Inventory Update Rule:

Subject to a Special Regulatory Action under TSCA (2002 EPA Instructions, App. B) Not regulated

TSCA Section 12(b) One-Time Export Notification Regulated: Not regulated

California Proposition 65: Not regulated

Canada information:

WHMIS Controlled Product: Not applicable (Manufactured article)

Australia Information:

Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC

16. Other Information

List of relevant R-phrases: R-22 Harmful if swallowed.

This "Material Safety Data Sheet" contains health, safety, and environmental information. It does not replace any precautionary language or use and disposal information which accompanies the product. The information contained herein is believed to be accurate at the time of preparation, but should only be used as a guide. It is subject to revision from time to time.

Revision Information: Initial MSDS Development.

Disclaimer:

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