

Material Safety Data Sheet

1. Identification of The Substance/Preparation and of The Company/Undertaking

1.1. Identification of the preparation: EPSON Ink Cartridge T007

Inkjet Printing

1.2. Use of the substance/preparation: 1.3. Company/undertaking identification

Manufacturer/Distributor:	EPSON EUROPE B.V.
Address:	Entrada 701,
	1096 EJ AMSTERDAM
	The Netherlands
	www.epson-europe.com
<i>TEL</i> : +31-20-314-5000	FAX: +31-20-314-5100
e-mail:	chemicals@epson-europe.com
Date Prepared:	30 May 2008
Revision:	Α
1.4. Emergency telephone:	Giftnotruf Berlin +49 030 19240

2. Hazards Identification

2.1. Emergency Overview:

This ink does not meet the criteria for dangerous classification according to EU Directive 1999/45/EC. Nevertheless, one of its components does meet the criteria for dangerous classification according to EU Directive 67/548/EEC.

Ink component is a black 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 on Ingredients

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
Colorants	Trade secret	Trade secret	Not available for the moment	5 - 10	None	None	None	None
Diethylene glycol monobutyl ether	112-34-5	203-961-6	Not available for the moment	About 10	X _i	R-36	See section 8	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	5 - 10	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	5 -10	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None

Please refer to the section 16, where the full text of each relevant R-phrase.



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 advice; 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:

EU OELs

2-(2-butoxyethoxy)ethanol (DEGBE)(CAS No.112-34-5) The threshold limit is: 67,5 mg/ m³ The threshold limit is: 10 ppm The STEL is: 101,2 mg/ m³

The STEL is: 15 ppm

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

7. I hysical and Chemical I topel it	
9.1. General information	
Appearance:	Black Liquid
Odor:	None
9.2. Important health, safety and e	environmental information
pH:	about 9.2 at 20 °C
Boiling point:	No data available
Flash point:	Not detected until 110 °C (closed cup, ASTM D3278)
Flammability (solid, gas):	None
Explosive properties:	None
Oxidizing properties:	None
Vapor pressure:	No data available
Relative density:	1.066 at 20°C
Solubility:	No data available
Water solubility:	Complete
Partition coefficient: n-octanol/	water: No data available
Viscosity:	Less than 5 mPa·s at 20°C
Vapor density:	No data available
Evaporation rate:	None
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 pr	oducts: No data available

11. Toxicological Information

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 and anesthesia
- 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 (1,2A and 2B)
<i>Toxicity Data:</i> Oral LD ₅₀ :	>5000mg/kg (Rats)
Dermal LD ₅₀	: No data available
Inhalant LC ₅₀	:No applicable
Eye irritating:	Mild irritating (Rabbits, OECD 405)
Skin irritating:	Mild irritating (Rabbits, OECD 404)
Skin sensitizing:	Non-sensitizing (Guinea Pig, OECD 406)



12. Ecological Information

12.1. Ecotoxicity
12.2. Mobility
12.3. Persistence and degradability
12.4. Bioaccumulative potential
12.5. Result of PBT assessment
12.6. Other adverse effects

No data available on the adverse effects of this ink on the environment No data available on the adverse effects of this ink on the environment No data available on the adverse effects of this ink on the environment No data available on the adverse effects of this ink on the environment Has not carried out PBT assessment 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 Information

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 regulatedTSCA Section 8(a) Preliminary Assessment Information Rule (PAIR):Not regulatedTSCA Section 8(a) Inventory Update Rule:Not regulatedSubject to a Special Regulatory Action under TSCA (2002 EPA Instructions, App. B)Not regulatedTSCA Section 12(b) One-Time Export Notification Regulated:Contains "Diethoxybenzenamine derivative, diazotized, coupled with aminonaphthalenesulfonic acid (EPA Accession Number 276698)"Not regulatedCalifornia Proposition 65:Not regulated

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-36 Irritating to eyes.

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. EPSON does not warrant the completeness or accuracy of the information contained herein.



Material Safety Data Sheet

1. Identification of The Substance/Preparation and of The Company/Undertaking

1.1. Identification of the preparation: EPSON Ink Cartridge T008

1.2. Use of the substance/preparation: Inkjet Printing

1.3. Company/undertaking identification

Manufacturer/Distributor:	EPSON EUROPE B.V.
Address:	Entrada 701,
	1096 EJ AMSTERDAM
	The Netherlands
	www.epson-europe.com
<i>TEL</i> : +31-20-314-5000	FAX: +31-20-314-5100
e-mail:	<u>chemicals@epson-europe.com</u>
Date Prepared:	29 May 2009
Revision:	А
1.4. Emergency telephone:	Giftnotruf Berlin +49 030 19240

2. Hazards Identification

2.1. Emergency Overview:

This ink does not meet the criteria for dangerous classification according to EU Directive 1999/45/EC. Nevertheless, one of its components does meet the criteria for dangerous classification according to EU Directive 67/548/EEC.

Ink component is cyan, magenta, yellow, light cyan and light magenta 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:

	55
Eyes:	Ink contact with eye may be mildly irritating.
Skin:	Ink contact with skin may cause irritation, swelling or redness.
Inhalation:	Intentional exposure to ink vapors (mist) will cause respiratory irritation.
Ingestion:	May cause upset stomach.

3. Composition/Information on Ingredients

This is an aqueous ink formulation <Cvan ink>

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Colorants	Trade secret	Trade secret	Not available for the moment	1 - 5	None	None	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	About 10	X _i	R-41	None	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	10 - 15	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	About 10	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None



<Magenta ink>

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Azo Dye	Trade secret	Trade secret	Not available for the moment	1 - 5	Xi	R-36 R-52/53	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	About 10	X _i	R-41	None	None
Diethylene glycol	111-46-6	203-872-2	Not available for the moment	5 - 10	X _n	R-22	None	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	5 - 10	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	About 10	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None

<Yellow ink>

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Azo Dye	Trade secret	Trade secret	Not available for the moment	1 - 5	Xi	R-41, R-43	None	None
Colorants	Trade secret	Trade secret	Not available for the moment	<1	None	None	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	About 10	X_i	R-41	None	None
Diethylene glycol	111-46-6	203-872-2	Not available for the moment	5 - 10	X _n	R-22	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	1 - 5	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	About 10	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None

<Light Cyan ink>

Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Colorants	Trade secret	Trade secret	Not available for the moment	< 1	None	None	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	About 10	X_i	R-41	None	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	15 - 20	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	About 10	None	None	None	None



Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None
<light ink="" magenta=""></light>							_	
Ink Composition	CAS No.	EEC No.	EU registration No.	% By Weight	EU Symbols	EU R-phrase	EU OELs	Remark
Colorants	Trade secret	Trade secret	Not available for the moment	1 - 5	None	None	None	None
TEGBE	143-22-6	205-592-6	Not available for the moment	About 10	X _i	R-41	None	None
Diethylene glycol	111-46-6	203-872-2	Not available for the moment	5 - 10	X _n	R-22	None	None
Triethanolamine	102-71-6	203-049-8	Not available for the moment	< 1	None	None	None	None
Proprietary organic materials	Trade secret	Trade secret	Not available for the moment	1 - 5	None	None	None	None
Glycerols	Trade secret	Trade secret	Not available for the moment	About 15	None	None	None	None
Water	7732-18-5	231-791-2	Exemption	balance	None	None	None	None

Please refer to the section 16, where the full text of each relevant R-phrase.

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 advice; 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:
 - Australia: OELs
 - 2, 2-Oxybisethanol (CAS No. 111-46-6)
 - The Time Weighted Average is: 23 ppm.
 - The Time Weighted Average is: 100 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

	Cyan ink	Magenta ink	Yellow ink
Appearance	Cyan Liquid	Magenta Liquid	Yellow Liquid
Odor	Slightly	Slightly	Slightly

	Light Cyan Ink	Light Magenta Ink
Appearance	Light Cyan Liquid	Light Magenta Liquid
Odor	Slightly	Slightly

9.2. Important health, safety and environmental information

	Cyan ink	Magenta ink	Yellow ink
рН	8.5 ~ 10.0 at 20°C	8.5 ~ 9.8 at 20 °C	About 9 at 20 °C
Boiling point	No data available	Approximately 100 °C	No data available
Flash point	Not detected until 110°C	Not detected until 100 °C	Not flammable
	(Closed Cup, ASTM	(closed cup, ASTM D3278)	
	D3278)		
Autoflammability	No data available	None	None
Explosive	No data available	None	None
properties			
Oxidizing	No data available	None	None
properties			
Vapor density	No data available	Greater than 1 (air = 1)	Greater than 1 (air $=$ 1)
Relative density	1.080 at 20°C	1.071 at 20 °C	1.06 at 20 °C
Solubility in water	Complete	Complete	Complete
Solubility in fat	No data available	No data available	No data available
Partition coefficient	No data available	No data available	No data available
Viscosity	Less than 5 mPa·s at 20°C	Less than 5 mPa·s at 20°C	Less than 5 mPa-s at 20°C



	$I: I \in C$ $I = I$	$\mathbf{I}^{*} \mathbf{I} \mathbf{M} \mathbf{A} \mathbf{I} \mathbf{I}$
	Light Cyan Ink	Light Magenta Ink
рН	8.5 ~ 9.8 at 20 °C	8.0 ~ 9.5 at 20 °C
Boiling point	Approximately 100 °C	No data available
Flash point	Not detected until	Not detected until 100 °C
	100 °C (closed cup,	(closed cup, ASTM D3278)
	ASTM D3278)	_
Autoflammability	None	No data available
Explosive	None	No data available
properties		
Oxidizing	None	No data available
properties		
Vapor density	Greater than 1 (air = 1)	No data available
Relative density	1.063 at 20 °C	1.068 at 20 °C
Solubility in water	Complete	Complete
Solubility in fat	No data available	No data available
Partition coefficient	No data available	No data available
Viscosity	Less than 5 mPa·s at	Less than 5 mPa·s at 20°C
	20°C	

9.3. Other information

	Cyan ink	Magenta ink	Yellow ink
Melting point:	No data available	No data available	No data available

	Light Cyan Ink	Light Magenta Ink
Melting point:	No data available	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: No data available		

11. Toxicological Information

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 and anesthesia
- Intentional or accidental oral ingestion may cause an upset stomach

<*Cyan ink*>

Chronic Health Hazards:	None known
Mugtagenicity:	Negative (by Ames test)
Carcinogenicity:	Not contain any substances listed in IARC Monographs (1,2A and 2B)
<i>Toxicity Data:</i> Oral LD ₅₀ :	> 2500mg/kg (Rat)
Dermal LD ₅₀ :	> 2000mg/kg (Rat)
Inhalant LC ₅₀	: No data available
Eye irritating:	Minimal irritant (Rabbit)
Skin irritating:	Mild irritant (Rabbit)
Skin sensitizing:	Non-sensitizing (Guinea Pig)



None known Negative (by Ames test) Not contain any substances listed in IARC Monographs (1,2A and 2B) > 5000mg/kg (Rat) > 2000mg/kg (Rat) : No data available Minimal irritant (Rabbit) Mild irritant (Rabbit) Non-sensitizing (Guinea Pig)
None known Negative (by Ames test) Not contain any substances listed in IARC Monographs (1,2A and 2B) > 2000mg/kg (Rat) > 2000mg/kg (Rat) No data available Non irritant (Rabbit) Non irritant (Rabbit) Non-sensitizing (Guinea Pig)
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None known Negative (by Ames test) Not contain any substances listed in IARC Monographs (1,2A and 2B) > 2000mg/kg (Rat) > 2000mg/kg (Rat) : No data available Minimal irritant (Rabbit) Non irritant (Rabbit) Non-sensitizing (Guinea Pig)

12. Ecological Information

No data available on the adverse effects of this ink on the environment
No data available on the adverse effects of this ink on the environment
No data available on the adverse effects of this ink on the environment
No data available on the adverse effects of this ink on the environment
Has not carried out PBT assessment
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 Information

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-41	Risk of serious damage of eyes.
	R-22	Harmful if swallowed.
	D 26	Toutestus de serve

- R-36 Irritating to eyes
- R-43 May cause sensitization by skin contact

R-52/53 Harmful to aquatic organisms, may cause long-term adverse defects in the aquatic environment.

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. EPSON does not warrant the completeness or accuracy of the information contained herein.