

MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Canon FINE Cartridge CL-38

Product Code: 2146B

Company Name: Canon Europa N.V.

Address: Bovenkerkerweg 59-61, 1185 XB, Amstelveen, The Netherlands

Use of the Product: Ink for Ink Jet Printer

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

< **Ingredient(s)** >

Chemical Name / Generic Name	CAS # / EC #	Weight %	EU Symbol/ R-Phrase	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Ethylene glycol (Contained in cyan and magenta ink)	107-21-1 / 203-473-3	5 - 10	Xn / R22	Not established	(aerosol) Ceiling = 100 mg/m ³	TWA = 20 ppm, 52 mg/m ³ STEL = 40 ppm, 104 mg/m ³	10 ppm, 26 mg/m ³
Diethylene glycol (Contained in yellow ink)	111-46-6 / 203-872-2	5 - 10	Xn / R22	Not established	Not established	Not established	10 ppm, 44 mg/m ³
Glycerin	56-81-5 / 200-289-5	1 - 10	None / None	(as mist) Total dust TWA = 15 mg/m ³ Respirable fraction TWA = 5 mg/m ³	(as mist) TWA = 10 mg/m ³	Not established	Not established
Substituted phthalocyanine (Contained in cyan ink)	Confidential	5 - 10	Xi / R41 R52/53	Not established	Not established	Not established	Not established
Magenta dye (Contained in magenta ink)	Confidential	5 - 10	None / None	Not established	Not established	Not established	Not established
Lactam	Confidential	1 - 10	None / None	Not established	Not established	Not established	Not established
Water	7732-18-5 / 231-791-2	60 - 80	None / None	Not established	Not established	Not established	Not established

< Carcinogen >

No component of this ink is listed as a human carcinogen or a potential carcinogen in IARC Monographs, NTP, OSHA regulations or Annex I to Directive 67/548/EEC.

SECTION 3 HAZARDS IDENTIFICATION**EU Classification:**

Not classified as dangerous.

Emergency Overview:

A three-color ink cartridge. (Cyan, Magenta and Yellow)
All the ink is liquid mixture with slight odor.

Potential Health Effects and Symptoms:**Inhalation:**

No adverse effects are expected under intended use.
Over exposure to vapor or mist may cause respiratory tract irritation, cough, dizziness, drowsiness, headache and nausea.

Ingestion:

May cause abdominal pain, diarrhea, dizziness, drowsiness, dullness, headache, nausea and vomiting.

Eye:

Cyan and Yellow: No irritation is expected.
Magenta: May cause mild irritation.
(See SECTION 11)

Skin:

Cyan and Magenta: May cause mild irritation and no sensitization.
Yellow: Neither irritation nor sensitization is expected.
(See SECTION 11)

Chronic Effects:

Not identified

Medical Conditions Generally known to be Aggravated by Exposure:

Not identified

SECTION 4 FIRST AID MEASURES**First Aid Measures:****Inhalation:**

If symptoms are experienced, move victim to fresh air and obtain medical advice.

Ingestion:

Rinse mouth. Give one or two glasses of water.
If irritation or discomfort occurs, obtain medical advice immediately.

Eye:

Immediately flush with lukewarm, gently flowing water for 5 minutes or until the chemical is removed.
If irritation persists, obtain medical advice immediately.

Skin:

Wash with water and soap or mild detergent.
If irritation persists, obtain medical advice.

Note to Physicians:

None

SECTION 5 FIRE FIGHTING MEASURES

Fire Fighting Measures:**Extinguishing Media:**CO₂, water, foam or dry chemicals

Unsuitable Extinguishing Media:None

Special Fire Fighting Procedures:None

Unusual Fire and Explosion Hazards:None

Fire and Explosive Properties (See also SECTION 9):**Hazardous Combustion Products:**CO, CO₂, NO_x and SO_x

Other Properties:None

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions:Avoid contact with skin, eyes and clothing.

Environmental Precautions:Do not release to sewer, surface water or ground water.

Method for Cleaning Up:Wipe off with wet cloth or paper.

SECTION 7 HANDLING AND STORAGE

Handling:

Use with adequate ventilation.

Avoid contact with skin, eyes and clothing.

In case of contact, wash out the contaminated area immediately.

Storage:

Keep in a cool and dry place.

Protect from sunlight.

Keep out of the reach of children.

Specific Uses:

Ink for Ink Jet Printer.

For more information, please refer to the instruction of this product.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:Not established for this ink. (See also SECTION 2)

Engineering Controls:Use adequate ventilation.

Personal Protection Equipment(s):**Respiratory Protection:** Required
 Not Required**Eye/Face Protection:** Required
 Not Required**Skin Protection:** Required
 Not Required

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Cyan, magenta and yellow liquid
Odor:	Slight odor
pH:	7 - 10
Boiling Point/Range(°C):	Not available
Melting Point/Range(°C):	Not available
Decomposition Temperature(°C):	Not available
Flash Point(°C):	None (Estimate)
Flammable (Explosive) Limits:	Not available
Autoignition Temperature(°C):	Not available
Flammability:	Neither flammable nor combustible.
Explosive Properties:	None (Estimate)
Oxidizing Properties:	None (Estimate)
Vapor Pressure :	Not available
Vapor Density :	Not available
Density / Specific Gravity:	1.0 - 1.1
Water Solubility :	Miscible
Fat Solubility :	Not available
Partition Coefficient (n-Octanol/Water):	Not available
Percent Volatile (%):	60 - 80
Evaporation Rate:	Not available
Viscosity (mPa s):	1 - 5

SECTION 10 STABILITY AND REACTIVITY

Stability:	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
Conditions to Avoid:	None
Materials to Avoid:	Acids, bases, oxidizing materials and reducing agents
Hazardous Decomposition Products:	CO, CO ₂ , NO _x , SO _x and Ammonia
Hazardous Polymerization:	<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur
Conditions to Avoid:	None

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:

Not available

Ingestion:

Cyan and Magenta: Not available

Yellow: LD₅₀ > 2000 mg/kg (rat) (Estimate)

OECD Guidelines No.423 (2001), 96/54/EC Method B1 tris

Eye:

Cyan: Practically non-irritant (rabbit) (Estimate)

OECD Guidelines No.405 (2002), 2004/73/EC Method B5

Magenta: Mild irritant (rabbit) (Estimate)

Yellow: Practically non-irritating (rabbit) (Estimate)

OECD Guidelines No.405 (2002), 92/69/EEC Method B5

Skin:

Cyan and Magenta: Mild irritant (rabbit) (Estimate)

OECD Guidelines No.404 (2002), 2004/73/EC Method B4

Yellow: Not irritant (rabbit) (Estimate)

OECD Guidelines No.404 (2002), 92/69/EEC Method B4

Sensitization:

Cyan and Magenta: Non-sensitizer (mouse) (Estimate)

OECD Guidelines No.429 (2002), 2004/73/EC Method B42

Yellow: Non-sensitizer (guinea pig) (Estimate)

OECD Guidelines No.406 (1992), 96/54/EC Method B6

Mutagenicity:

Ames test:

All colors: Negative (*S. typhimurium* & *E. Coli*)

Reproductive Toxicity:

Not available

Carcinogenicity:

Not available

Others:

Not available

SECTION 12 ECOLOGICAL INFORMATION

Mobility: Not available

Persistence / Degradability: Not available

Bioaccumulation: Not available

Ecotoxicity: Not available

Other Adverse Effects: Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Method of Disposal:
Disposal should be subject to federal, state and local laws.

SECTION 14 TRANSPORT INFORMATION

UN #: None

UN Shipping Name: None

UN Classification: None

UN Packing Group: None

Marine Pollutant: Yes No **Chemical name (wt%):**

Special Precautions: None

SECTION 15 REGULATORY INFORMATION

< EU Information >

Information on the Label:

Symbol & Indication: Not required

R-Phrase:
Not required

S-Phrase:
Not required

Dangerous Component(s):
Not required

Special Precautions under 1999/45/EC Annex V:
Not required

Specific Provisions in Relation to Protection of Man or the Environment:

76/769/EEC: Not regulated

(EC)2037/2000: Not regulated

(EC)304/2003: Not regulated

Others: None

< USA Information >

Information on the Label under FHSA:

Signal Word: Not required

Hazard warning:
Not required

Safety Advice:
Not required

Hazardous Component(s):
Not required

SARA Title III §313:

Chemical Name	Weight %
"Ethylene glycol" (107-21-1) (Contained in cyan and magenta ink)	5 - 10
"Copper Compounds" (Contained in cyan ink) (as Cu)	5 - 10 (< 0.35)

California Proposition 65:

Chemical Name	Weight %
None	

< Canada Information >

WHMIS Controlled Product: Not applicable (Manufactured article)

< Australia Information >

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

SECTION 16 OTHER INFORMATION

R phrase list
 R22: Harmful if swallowed.
 R41: Risk of serious damage to eyes.
 R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Term explanation
 Estimate: Estimate based on data of similar ink or the ingredient(s).

Literature References:

- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67/548/EEC, 1999/45/EC
- EU Regulation (EC)2037/2000, (EC)304/2003
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008]

Abbreviations:

- EU: European Union.
- OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA).
- ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
- EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC.
- DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.
- TWA: Time Weighted Average.
- STEL: Short Term Exposure Limit.
- IARC: International Agency for Research on Cancer.
- NTP: National Toxicology Program (USA).
- OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).
- FHSA: Federal Hazardous Substances Act (USA).
- WHMIS: Workplace Hazardous Materials Information System.
- NOHSC: National Occupational Health and Safety Commission.

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