

## MATERIAL SAFETY DATA SHEET

MSDS #: IC1179-0101

Product Code: 0954A / F47-0731

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

**Product Name:** Canon Ink Cartridge BCI-21 Black

**Product Code:** 0954A / F47-0731

**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
Glycerin	56-81-5 / 200-289-5	5 - 10	None / None	(as mist) Total dust TWA = 15 mg/m <sup>3</sup> Respirable fraction TWA = 5 mg/m <sup>3</sup>	(as mist) TWA = 10 mg/m <sup>3</sup>	Not established	Not established
Ethylene glycol	107-21-1 / 203-473-3	2 - 6	Xn / R22	Not established	(aerosol) Ceiling = 100 mg/m <sup>3</sup>	TWA = 20 ppm, 52 mg/m <sup>3</sup> STEL = 40 ppm, 104 mg/m <sup>3</sup>	10 ppm, 26 mg/m <sup>3</sup>
Isopropyl alcohol	67-63-0 / 200-661-7	2 - 6	F / R11 Xi / R36 R67	TWA = 400 ppm, 980 mg/m <sup>3</sup>	TWA = 400 ppm, 983 mg/m <sup>3</sup> STEL = 500 ppm, 1230 mg/m <sup>3</sup>	Not established	200 ppm, 500 mg/m <sup>3</sup>
Ammonia derivative	Confidential	5 - 10	None / None	Not established	Not established	Not established	Not established
Water	7732-18-5 / 231-79-12	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:**

Ink cartridge containing black liquid ink with slight odor.

**Potential Health Effects and Symptoms:**

**Inhalation:**

No adverse effects are expected under intended use.  
Glycerin mist may cause physical irritation and difficulty breathing.  
Over exposure to ethylene glycol and/or isopropyl alcohol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat.

**Ingestion:**

Ingestion of glycerin, ethylene glycol and/or isopropyl alcohol may cause headache, nausea, dizziness, vomiting, drowsiness, abdominal pain, dullness and sore throat.

**Eye:**

May cause minimal irritation based on the animal test data of this ink.  
(See SECTION 11)

**Skin:**

May be no irritation and no sensitization based on the animal test data of this ink.  
(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 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:**

CO<sub>2</sub>, 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, CO<sub>2</sub> and NO<sub>x</sub>

**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.

When contact, wash out immediately.

**Storage:**

Keep in a cool and dry place. Keep away from heat and flame.

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. (Also refer to 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

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### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Black liquid
<b>Odor:</b>	Slight odor
<b>pH:</b>	9.5 - 10.5
<b>Boiling Point/Range(°C):</b>	Not available
<b>Melting Point/Range(°C):</b>	Not available
<b>Decomposition Temperature(°C):</b>	Not available
<b>Flash Point(°C):</b>	49.0 (Tag.closed cup. Do not sustain combustion.)
<b>Flammable (Explosive) Limits:</b>	Not available
<b>Autoignition Temperature(°C):</b>	Not available
<b>Flammability:</b>	Classified as "Combustible liquid" under OSHA-HCS. Not classified as "flammable" or "combustible" under FHSA. Not classified as "flammable" under 1999/45/EC.
<b>Explosive Properties:</b>	None
<b>Oxidizing Properties:</b>	None
<b>Vapor Pressure :</b>	Not available
<b>Vapor Density :</b>	Not available
<b>Density / Specific Gravity:</b>	1.04
<b>Water Solubility :</b>	Miscible
<b>Fat Solubility :</b>	Not available
<b>Partition Coefficient (n-Octanol/Water):</b>	Not available
<b>Percent Volatile (%):</b>	60 - 80
<b>Evaporation Rate:</b>	Not available
<b>Viscosity (mPa s):</b>	1.5 - 2.1

### SECTION 10 STABILITY AND REACTIVITY

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

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Acute Toxicity:**

**Inhalation:**

Not available

**Ingestion:**

Not available

**Eye:**

Minimal irritant, Maximum Group Mean Score = 2.7, Class 3 (rabbit)

OECD Guidelines No.405 (1987)

92/69/EEC Method B5

**Skin:**

Non irritant, Primary Irritation Index = 0.0 (rabbit)

OECD Guidelines No.404 (1992)

92/69/EEC Method B4

**Sensitization:**

Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)

OECD Guidelines No.406 (1992)

96/54/EC Method B6

**Mutagenicity:**

Ames test : Negative (test strains: *S.typhimurium*)

**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 CONSIDERATION**

**Method of Disposal:**  
Disposal may 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):**  
None

**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

**(EEC)2455/92:** Not regulated

**Others:** None

## &lt; USA Information &gt;

**Information on the Label under FHSA:****Signal Word:** Not required**Hazard warning:**

Not required

**Safety Advice:**

Not required

**Hazardous Component(s):**

None

**SARA Title III §313:**

Chemical Name	Weight %
"Ethylene glycol" (107-21-1)	2 - 6

**California Proposition 65:**

Chemical Name	Weight %
None	

## &lt; Canada Information &gt;

**WHMIS Controlled Product:** Not applicable (Manufactured article)

## &lt; Australia Information &gt;

**Statement of Hazardous Nature:** Not classified as hazardous according to criteria of NOHSC.**SECTION 16 OTHER INFORMATION**

&lt;R phrase list&gt;

R11 : Highly flammable.

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

R67 : Vapours may cause drowsiness and dizziness.

&lt;Revised information from the previous version&gt;

Entirely revised.

**Literature Reference:**

- 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, (EEC)2455/92
- 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 and 2000/39/EC.  
DFG MAK: MAK(Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.  
TWA: Time Weighted Average.  
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 Act 1985.

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