

MATERIAL SAFETY DATA SHEET

 MSDS #: IC1290-0101
 Product Code: 4481A / F47-3151
SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Canon Ink Tank BCI-3eM
Product Code: 4481A / F47-3151
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 ³ Respirable fraction TWA = 5 mg/m ³	(as mist) TWA = 10 mg/m ³	Not established	Not established
Ethylene glycol	107-21-1 / 203-473-3	2 - 6	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	111-46-6 / 203-872-2	2 - 6	Xn / R22	Not established	Not established	Not established	10 ppm, 44 mg/m ³
Isopropyl alcohol	67-63-0 / 200-661-7	1 - 3	F / R11 Xi / R36 R67	TWA = 400 ppm, 980 mg/m ³	TWA = 200 ppm, 492 mg/m ³ STEL = 400 ppm, 984 mg/m ³	Not established	200 ppm, 500 mg/m ³
Quinoline derivative	Confidential	1 - 3	Xi / R36	Not established	Not established	Not established	Not established
Triazine derivative	Confidential	1 - 3	Xi / R36 R52/53	Not established	Not established	Not established	Not established
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 tank containing magenta liquid ink 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:

May cause minimal irritation. (See SECTION 11)

Skin:

May cause mild irritation and no sensitization. (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 and NO_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 away from heat and flame.

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

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	<u>Magenta liquid</u>
Odor:	<u>Slight odor</u>
pH:	<u>9.1 - 10.1</u>
Boiling Point/Range(°C):	<u>Not available</u>
Melting Point/Range(°C):	<u>Not available</u>
Decomposition Temperature(°C):	<u>Not available</u>
Flash Point(°C):	<u>Estimate : 55 -57 (Tag Closed Cup. Combustion is not sustainable.)</u>
Flammable (Explosive) Limits:	<u>Not available</u>
Autoignition Temperature(°C):	<u>Not available</u>
Flammability:	<u>Classified as "Combustible liquid" under OSHA-HCS. Not classified as "flammable" or "combustible" under FHSA. Not classified as "flammable" under 1999/45/EC.</u>
Explosive Properties:	<u>None</u>
Oxidizing Properties:	<u>None</u>
Vapor Pressure :	<u>Not available</u>
Vapor Density :	<u>Not available</u>
Density / Specific Gravity:	<u>1.04 - 1.10</u>
Water Solubility :	<u>Miscible</u>
Fat Solubility :	<u>Not available</u>
Partition Coefficient (n-Octanol/Water):	<u>Not available</u>
Percent Volatile (%):	<u>60 - 80</u>
Evaporation Rate:	<u>Not available</u>
Viscosity (mPa s):	<u>2.0 - 2.6</u>

SECTION 10 STABILITY AND REACTIVITY

Stability:	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
Conditions to Avoid:	<u>None</u>
Materials to Avoid:	<u>Acids, bases, oxidizing materials and reducing agents</u>
Hazardous Decomposition Products:	<u>CO, CO₂ , NOx and Ammonia</u>
Hazardous Polymerization:	<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur
Conditions to Avoid:	<u>None</u>

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:

Not available

Ingestion:

[Data of similar composition ink] Estimated LD₅₀ > 2500 mg/kg (rat)

OECD Guidelines No.423 (1996)

96/54/EC Method B1 tris

Eye:

[Data of similar composition ink] Minimal irritant (rabbit)

OECD Guidelines No.405 (1987)

92/69/EEC Method B5

Skin:

[Data of similar composition ink] Mild irritant (rabbit)

OECD Guidelines No.404 (1992)

92/69/EEC Method B4

Sensitization:

[Data of similar composition ink] Non sensitizer (guinea pig)

OECD Guidelines No.406 (1992)

96/54/EC Method B6

Mutagenicity:

Ames test : Negative (test strains: *S.typhimurium* & *E.Coli*)

Chromosome aberration test : Negative (test strains: *Human peripheral blood lymphocytes*)

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 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 **Chemical name (wt%):**
 No

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

(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):
None

SARA Title III §313:

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

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>
 R11 : Highly flammable.
 R22 : Harmful if swallowed.
 R36 : Irritating to eyes.
 R67 : Vapours may cause drowsiness or dizziness.
 R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

<Revised information from the previous version>
 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, (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 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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