

## MATERIAL SAFETY DATA SHEET

 MSDS #: IC1213-0101  
 Product Code: 0881A / F45-0241

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

**Product Name:** Canon BJ Cartridge BC-02  
**Product Code:** 0881A / F45-0241  
**Manufacturer:** Canon Inc.  
 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo 146-8501, Japan  
**Supplier:** Canon Singapore Pte Ltd  
 1 HarbourFront Avenue, #04-01, Keppel Bay Tower, Singapore 098632  
 cspl\_msdms@canon.com.sg  
**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	2 - 6	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
Thiodiglycol	111-48-8 / 203-874-3	2 - 6	Xi / R36	Not established	Not established	Not established	Not established
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	65 - 85	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.

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:**

No irritation is expected. (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:**

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>, NO<sub>x</sub> and SO<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.

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

<b>Appearance:</b>	Black liquid
<b>Odor:</b>	Slight odor
<b>pH:</b>	6.5 - 8.0
<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>	48.5 (Tag Closed Cup. Combustion is not sustainable.)
<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 - 1.10
<b>Water Solubility :</b>	Miscible
<b>Fat Solubility :</b>	Not available
<b>Partition Coefficient (n-Octanol/Water):</b>	Not available
<b>Percent Volatile (%):</b>	65 - 85
<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> , Ammonia and SO <sub>x</sub>
<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:**

LD50 > 5000 mg/kg, 0/10 mortalities at 5000 mg/kg (rat)  
 OECD Guidelines No.401 (1981)  
 84/449/EEC Method B1  
 FHSA 16 CFR Sec.1500.3

**Eye:**

Non irritant (rabbit)  
 FHSA 16 CFR Sec.1500.42

**Skin:**

Acute dermal irritation :  
 Mild irritant, Primary Irritation Index = 0.3 (rabbit)  
 16 CFR Sec.1500.41

Acute dermal toxicity :  
 LD50 > 2000 mg/kg , 0/10 mortalities at 2000 mg/kg (rat)  
 OECD Guidelines No.402 (1981) & 84/449/EEC Method B3 & FHSA 16 CFR Sec.1500.40

**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*)  
  
 Chromosome aberration test : Negative  
 (test strains: *Human peripheral blood lymphocytes* &  
*A Chinese hamster fibroblast cell line isolated from the lung*)

**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):**  
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

## &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:**

<b>Chemical Name</b>	<b>Weight %</b>
<u>None</u>	

**California Proposition 65:**

<b>Chemical Name</b>	<b>Weight %</b>
<u>None</u>	

## &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.

R36 : Irritating to eyes.

R67 : Vapours may cause drowsiness or dizziness.

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

Entirely revised.

**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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