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

**Product Name:** Canon Color BJ Cartridge BC-21e  
**Product Code:** 0899A / F45-1301  
**Manufacturer:** Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Phone #03-3758-2111  
**Supplier:** Canon USA, Inc., One Canon Park, Melville, NY 11747, USA  
**Phone #:** 1-800-OK-CANON  
24 Hr. Emergency CHEMTREC # 1-800-424-9300

## SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name / Generic name</th>
<th>CAS # / EC #</th>
<th>Weight %</th>
<th>EU Symbol/ R-Phrase</th>
<th>USA OSHA PEL</th>
<th>ACGIH TLV</th>
<th>EU ILV</th>
<th>DFG MAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>56-81-5 / 200-289-5</td>
<td>5 - 10</td>
<td>None / None</td>
<td>(as mist) TWA = 15 mg/m³</td>
<td>(as mist) TWA = 10 mg/m³</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Thiodiglycol (Contained in cyan, magenta and yellow ink)</td>
<td>111-48-8 / 203-874-3</td>
<td>5 - 10</td>
<td>Xi / R36</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Ethylene glycol (Contained only in black ink)</td>
<td>107-21-1 / 203-473-3</td>
<td>2 - 6</td>
<td>Xn / R22</td>
<td>(aerosol) Ceiling = 100 mg/m³</td>
<td>TWA = 20 ppm, 52 mg/m³ STEL = 40 ppm, 104 mg/m³</td>
<td>10 ppm, 26 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Copper compound (Contained only in cyan ink)</td>
<td>Confidential</td>
<td>2 - 6</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Copper and its compounds Inhalable fraction 1.0 mg/m³</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0 / 200-661-7</td>
<td>2 - 6</td>
<td>F / R11, Xi / R36, R67</td>
<td>TWA = 400 ppm, 980 mg/m³</td>
<td>TWA = 400 ppm, 983 mg/m³ STEL = 500 ppm, 1230 mg/m³</td>
<td>Not established</td>
<td>200 ppm, 500 mg/m³</td>
</tr>
<tr>
<td>C.I. Direct Yellow 173 (Contained only in yellow ink)</td>
<td>Not registered / 414-410-6</td>
<td>1 - 3</td>
<td>Xi / R41</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>C.I. Direct Violet 107 - The substance name in accordance with 67/547/EEC is stated in SECTION 16 (Contained only in magenta ink)</td>
<td>Not registered / 413-180-4</td>
<td>1 - 3</td>
<td>Xi / R41</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha -alpha -(-1,4-dimethyl-1,4-bis(3-bis(ethoxypoly(1-2-butylic)-1,4-diyl)bis(oxy)-2- 3benzene) hydroxyl) (Contained in cyan, magenta and yellow ink)</td>
<td>9014-85-1 / Not applicable</td>
<td>1 - 3</td>
<td>Xi / R41</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Ammonia derivative</td>
<td>Confidential</td>
<td>5 - 10</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5 / 231-79-12</td>
<td>60 - 80</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

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

Eye:
May be no irritation and no sensitization based on the animal test data of this ink. (See SECTION 11)

Skin:
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, dizziness and sore throat.

Emergency Overview:
A set of four colors ink cartridges. (Black, 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.
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, dizziness 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 sensitzation 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

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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, NOx and SOx

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: ☒ Not Required

  Eye/Face Protection: ☒ Not Required

  Skin Protection: ☒ Not Required

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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black, cyan, magenta and yellow liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor</td>
</tr>
<tr>
<td>pH</td>
<td>8.2 - 10.5</td>
</tr>
<tr>
<td>Boiling Point/Range(°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point/Range(°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature(°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point(°C)</td>
<td>Black: 49.0 Color: Estimate 55 - 57 (Tag: closed cup. Do not sustain combustion.)</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature(°C)</td>
<td>Black: Not available Color: Estimate 460 - 490 (ASTM-E659)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Classified as &quot;Combustible liquid&quot; under OSHA-HCS. Not classified as &quot;flammable&quot; or &quot;combustible&quot; under FHSA. Not classified as &quot;flammable&quot; under 1999/45/EC.</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>None</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>None</td>
</tr>
<tr>
<td>Vapor Pressure :</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density :</td>
<td>Not available</td>
</tr>
<tr>
<td>Density / Specific Gravity</td>
<td>1.04 - 1.10</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible</td>
</tr>
<tr>
<td>Fat Solubility :</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/Water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Percent Volatile (%)</td>
<td>60 - 80</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity (mPa s)</td>
<td>1.5 - 2.6</td>
</tr>
</tbody>
</table>

## SECTION 10 STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>☒ Stable</td>
</tr>
<tr>
<td>Unstable</td>
<td></td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None</td>
</tr>
<tr>
<td>Materials to Avoid</td>
<td>Acids, bases, oxidizing materials and reducing agents</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>CO, CO₂, NOx, Ammonia and SOx</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>☐ May Occur</td>
</tr>
<tr>
<td>Will Not Occur</td>
<td></td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None</td>
</tr>
</tbody>
</table>
SECTION 11  TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Not available

Eye:
Black : Minimal irritant, Maximum Group Mean Score = 2.7, Class 3 (rabbit)
Cyan : Minimal irritant, Maximum Group Mean Score = 5.3, Class 3 (rabbit)
Magenta : Minimal irritant, Maximum Group Mean Score = 3.3, Class 3 (rabbit)
Yellow : Minimal irritant, Maximum Group Mean Score = 4.0 (rabbit)
EPA (FIFRA) Pesticide Assessment Guideline par.81-4
EPA (TSCA) Federal Regulation Subpart E Sec.798.4500

Skin:
Black, Cyan and Magenta : Non irritant, Primary Irritation Index = 0.0 (rabbit)
OECD Guidelines No.404 (1992)
92/69/EEC Method B4
Yellow : Non irritant, Primary Irritation Index = 0.0 (rabbit)
EPA (FIFRA) Pesticide Assessment Guideline par.81-5
EPA (TSCA) Federal Regulation Subpart E Sec.798.4470

Sensitization:
Black and Magenta : Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)
96/54/EC Method B6
Cyan and Yellow : Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)
92/69/EEC Method B6

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

Reproductive Toxicity:
Not available

Carcinogenicity:
Not available

Others:
Not available

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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

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

(ECC)2455/92: Not regulated

Others: None

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**< USA Information >**

**Information on the Label under FHSA:**

<table>
<thead>
<tr>
<th>Signal Word:</th>
<th>Not required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard warning:</td>
<td>Not required</td>
</tr>
<tr>
<td>Safety Advice:</td>
<td>Not required</td>
</tr>
</tbody>
</table>

**Hazardous Component(s):**

None

**SARA Title III §313:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Ethylene glycol&quot; (107-21-1) (Contained only in black ink)</td>
<td>2 - 6</td>
</tr>
<tr>
<td>&quot;Copper Compounds&quot; (Contained only in cyan ink) (as Cu)</td>
<td>2 - 6 (&lt; 0.35)</td>
</tr>
</tbody>
</table>

**California Proposition 65:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

**< 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**

| R11 | Highly flammable. |
| R12 | Harmful if swallowed. |
| R36 | Irritating to eyes. |
| R41 | Risk of serious damage to eyes. |
| R67 | Vapours may cause drowsiness and dizziness. |

Entirely revised.
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