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

**Product Name:** Canon Color BJ Cartridge BC-31e  
**Product Code:** 4609A / F45-2051  
**Manufacturer:** Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, Ph# 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 IV</th>
<th>DFG MAK</th>
</tr>
</thead>
</table>
| Glycerin                    | 56-81-5 / 200-289-5 | 5 - 10 | None / None | (as mist) Total dust TWA = 15 mg/m³  
Respirable fraction TWA = 5 mg/m³ | (as mist) TWA = 10 mg/m³ | Not established | Not established |
| Ethylene glycol             | 107-21-1 / 203-473-3 | 2 - 6 | Xn / R22 | Not established | (aerosol) Ceiling = 100 mg/m³ | TWA = 50 ppm, 980 mg/m³ | 10 ppm, 26 mg/m³ |
| Diethylene glycol           | 111-46-6 / 203-872-2 | 2 - 6 | Xn / R22 | Not established | Not established | Not established | 10 ppm, 44 mg/m³ |
| Copper, [2H,3H-phthalocyaninato(2-) -N29,N30,N31,N32]-, aminosulfonyl sulfo derivs., sodium salts | 90295-11-7 / 291-001-7 | 2 - 6 | Xi / R36 | Not established | Not established | Not established | Copper and its compounds Inhalable fraction 1.0 mg/m³ |
| Isopropyl alcohol           | 67-63-0 / 200-661-7 | 1 - 3 | F / R11  
Xi / R36  
R67 | TWA = 400 ppm, 980 mg/m³ | TWA = 200 ppm, 492 mg/m³ | STEL = 400 ppm, 984 mg/m³ | 200 ppm, 500 mg/m³ |
| 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 |
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 set of three colors ink cartridges. (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:
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

Date of Issue: June 20, 2000
Revised: July 22, 2003
SECTION 5  FIRE FIGHTING MEASURES

Fire Fighting Measures:
- **Extinguishing Media:** CO\(_2\), 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\(_2\), and NOx
- **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:** ☒ Not Required
- **Eye/Face Protection:** ☒ Not Required
- **Skin Protection:** ☒ Not Required
### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Cyan, magenta and yellow liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor</td>
</tr>
<tr>
<td>pH</td>
<td>8.1 - 10.4</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>Estimate: 55 - 57 (Tag Closed Cup. Combustion is not sustainable.)</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature(°C)</td>
<td>Not available</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>1.9 - 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></td>
<td>☐ Unstable</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 and Ammonia</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>☐ May Occur</td>
</tr>
<tr>
<td></td>
<td>☒ Will Not Occur</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None</td>
</tr>
</tbody>
</table>

Date of Issue: June 20, 2000  Revised: July 22, 2003
SECTION 11   TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Cyan: Estimated LD₅₀ > 2500 mg/kg, 0/6 mortalities at 2000 mg/kg (rat)
Magenta: [Data of similar composition ink] Estimated LD₅₀ > 2500 mg/kg (rat)
OECD Guidelines No.423 (1996)
96/54/EC Method B1 tris
Yellow: Not available

Eye:
Cyan: Minimal irritant, Maximum Group Mean Score = 6.0, Class 3 (rabbit)
Yellow: Minimal irritant, Primary Irritation Index = 0.2 (rabbit)
Magenta: [Data of similar composition ink] Minimal irritant (rabbit)
OECD Guidelines No.405 (1987)
92/69/EEC Method B5

Skin:
Cyan: Mild irritant, Primary Irritation Index = 1.8 (rabbit)
Yellow: Mild irritant, Primary Irritation Index = 0.2 (rabbit)
Magenta: [Data of similar composition ink] Mild irritant (rabbit)
OECD Guidelines No.404 (1992)
92/69/EEC Method B4

Sensitization:
Cyan and Yellow: Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)
Magenta: [Data of similar composition ink] Non sensitizer (guinea pig)
96/54/EC Method B6

Mutagenicity:
Ames test:
All colors: Negative (test strains: S.typhimurium & E.Coli)

Chromosome aberration test:
Magenta: Negative (test strains: Human peripheral blood lymphocytes)
Cyan and Yellow: Not available

Reproductive Toxicity:
Not available

Carcinogenicity:
Not available

Others:
Not available

Date of Issue: June 20, 2000
Revised: July 22, 2003
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

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

Date of Issue: June 20, 2000
Revised: July 22, 2003
< 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:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Ethylene glycol&quot; (107-21-1) (Contained in cyan and magenta 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>
</tr>
</thead>
<tbody>
<tr>
<td>None</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

<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>
Section 2, 3, 4, 7, 8, 11 and 13

Date of Issue: June 20, 2000
Revised: July 22, 2003
The information, data and recommendations set forth herein (the "Information") are presented in good faith and are believed to be correct as of the date hereof. The company/manufacturer makes no representations as to the completeness or accuracy of the Information and disclaims responsibility for any reliance thereon. The Information is provided upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. Any use of the Information must be determined by the user to be in accordance with applicable Federal, state and local laws and regulations. In no event will the company/manufacturer be responsible for damages of any nature whatsoever resulting from the use or reliance upon the Information.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE WITH RESPECT TO THE INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

Date of Issue: June 20, 2000
Revised: July 22, 2003