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

**Product Name:** Canon Color BJ Cartridge BC-22e Photo  
**Product Code:** 0902A / F45-1311  
**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 24Hr. 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>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) (as mist)</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>
</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>Not established</td>
<td>(aerosol) TWA = 20 ppm, Ceiling = 100 mg/m³</td>
<td>10 ppm, 26 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 = 200 ppm, 980 mg/m³</td>
<td>TWA = 200 ppm, 492 mg/m³, STEL = 400 ppm, 984 mg/m³</td>
<td>Not established</td>
</tr>
<tr>
<td>Copper compound (Contained only in cyan ink)</td>
<td>Confidential</td>
<td>1 - 3</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</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>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl)-α,α,α',α'-(1,4-dimethyl-1,4-bis(2-methylpropyl)-1,4-diy)[bis(2-methylpropyl)-1,4-diy][bis(4-tert-butylcyclohexane-1,2-diy)] 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>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5 / 231-79-12</td>
<td>65 - 85</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

**Date of Issue:** September 11, 1997  
**Revised:** April 9, 2003
< 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:
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.
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:
Black : May cause mild irritation and no sensitization.
Cyan, Magenta and Yellow : Neither irritation nor sensitization is expected.(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: September 11, 1997
Revised: April 9, 2003
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.
  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
## 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 - 11.0</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: Estimate 47 - 50, Cyan, Magenta and Yellow: Estimate 56 - 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>Black: Not available</td>
</tr>
<tr>
<td></td>
<td>Cyan, Magenta and Yellow: Estimate 470 - 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>65 - 85</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity (mPa s)</td>
<td>1.3 - 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>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></td>
<td>☒ Will Not Occur</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None</td>
</tr>
</tbody>
</table>

Date of Issue: September 11, 1997
Revised: April 9, 2003
SECTION 11  TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Not available

Eye:
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
Black, Cyan and Magenta: [Data of similar composition ink] Minimal irritant (rabbit)
OECD Guidelines No.405 (1987)
92/69/EEC Method B5

Skin:
Yellow: Minimal irritant, Primary Irritation Index = 0.0 (rabbit)
EPA (FIFRA) Pesticide Assessment Guideline par.81-5
EPA (TSCA) Federal Regulation Subpart E, Sec.798.4470
Black: [Data of similar composition ink] Non irritant (rabbit)
Cyan and Magenta: [Data of similar composition ink] Non irritant (rabbit)
OECD Guidelines No.404 (1992)
92/69/EEC Method B5

Sensitization:
Yellow: Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)
Black, Cyan and Magenta: [Data of similar composition ink] Non sensitizer (guinea pig)
92/69/EEC Method B6

Mutagenicity:
Ames test:
Black, Cyan and Yellow: Negative (test strains: S.typhimurium)
Magenta: Negative (test strains: S.typhimurium & E.Coli)

Reproductive Toxicity:
Not available

Carcinogenicity:
Not available

Others:
Not available
### SECTION 12 ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Not available</td>
</tr>
<tr>
<td>Persistence / Degradability</td>
<td>Not available</td>
</tr>
<tr>
<td>Bioaccumulation</td>
<td>Not available</td>
</tr>
<tr>
<td>Ecotoxicity</td>
<td>Not available</td>
</tr>
<tr>
<td>Other Adverse Effects</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### 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:**
- [x] No
- [ ] Yes

**Chemical name (wt%):**

**Special Precautions:** None

### SECTION 15 REGULATORY 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

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**Date of Issue:** September 11, 1997

**Revised:** April 9, 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 only in black ink)</td>
<td>2 - 6</td>
</tr>
<tr>
<td>&quot;Copper Compounds&quot; (Contained only in cyan ink)</td>
<td>1 - 3</td>
</tr>
<tr>
<td>(as Cu)</td>
<td>(&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

<R phrase list>
R11 : Highly flammable.
R22 : Harmful if swallowed.
R36 : Irritating to eyes.
R41 : Risk of serious damage to eyes.
R67 : Vapours may cause drowsiness or dizziness.

<Revised information from the previous version>
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
- DFG, List of MAK and BAT Values
- Canada Workplace Hazardous Materials Information System

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.
- DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.
- TWA: Time Weighted Average.
- STEL: Short Term Exposure Limit.
- NTP: National Toxicology Program (USA).
- FHSA: Federal Hazardous Substances Act (USA).

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Date of Issue: September 11, 1997
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