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

Product Name: Canon Color BJ Cartridge BC-12e Photo
Product Code: 0908A/F45-1751
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 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)</td>
<td>Total dust: TWA = 15 mg/m³ Respirable fraction: TWA = 5 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>Not established</td>
<td>(aerosol) Ceiling: 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>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 = 200 ppm, 492 mg/m³ STEL = 400 ppm, 984 mg/m³</td>
<td>Not established</td>
<td>200 ppm, 500 mg/m³</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-alpha-[1,4-dimethyl-1,4-di (2-methoxypropyl)-2-butyne-1,4-diy] bis[omega-hydroxy- (Contained only in 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>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>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>
<td>Copper and its compounds Inhalable fraction: 1.0 mg/m³</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 / 231-791-2</td>
<td>65 - 85</td>
<td>None / None</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>
SECTION 3 HAZARDS IDENTIFICATION

EU Classification: Not classified as dangerous.

Emergency Overview:
A set of four colors ink cartridge. (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:
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

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Revised: April 16, 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

---

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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 - 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 47.8, 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: Estimate 539, Cyan, Magenta and Yellow: Estimate 470 - 490 (ASTM-E659)</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Classified as “Combustible liquid” under OSHA-HCS. Not Classified as “flammable” or “combustible” under FHSA. Not Classified as “flammable” 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, SOx and Ammonia</td>
</tr>
<tr>
<td>Hazardous Polymerization:</td>
<td>☑ Will Not Occur</td>
</tr>
<tr>
<td>Conditions to Avoid:</td>
<td>None</td>
</tr>
</tbody>
</table>

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**SECTION 11 TOXICOLOGICAL INFORMATION**

**Acute Toxicity:**

**Inhalation:**
Not available

**Ingestion:**
Not available

**Eye:**
- Black, Cyan and Magenta: [Data of similar composition ink] Minimal irritant (rabbit)
  - OECD Guidelines No.405 (1987)
  - 92/69/EEC Method B5
- Yellow: Minimal irritant, Maximum Group Mean Score = 4.0 (rabbit)
  - EPA (FIFRA) Pesticide Assessment Guideline part 81-4
  - EPA (TSCA) Federal Regulation Subpart E Sec. 798.4500
  - OECD Guidelines No.405 (1992)
  - 92/69/EEC Method B5

**Skin:**
- Black, Cyan and Magenta: [Data of similar composition ink] Non irritant (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 part 81-5
  - EPA (TSCA) Federal Regulation Subpart E Sec. 798.4470
  - OECD Guidelines No.404 (1992)
  - 92/69/EEC Method B4

**Sensitization:**
- Black and Cyan: [Data of similar composition ink] Non sensitizer (guinea pig)
- Magenta: [Data of similar composition ink] Non sensitizer (guinea pig)
  - OECD Guidelines No.406 (1992), 96/54/EC Method B6
- Yellow: Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)

**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 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

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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) (as Cu)</td>
<td>1 - 3 (&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 and dizziness.

<Revised information from the previous version>
Entirely revised

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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
- DFG, List of MAK and BAT Values
- 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.
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).

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