## MATERIAL SAFETY DATA SHEET
### SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name:** Canon BJ Cartridge BC-20  
**Product Code:** 0895A / F45-0561  
**Manufacturer:** Canon Inc., 30-2, Shimomaruko 3-Chome, Ohta-ku, Tokyo, Japan, 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>2 - 6</td>
<td>None / None</td>
<td>(as mist) Total dust TWA = 15 mg/m³ Respirable fraction TWA = 5 mg/m³</td>
<td>(as mist) TWA = 10 mg/m³</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Ethylene glycolkami</td>
<td>107-21-1 / 203-473-3</td>
<td>2 - 6</td>
<td>Xn / R22</td>
<td>Not established</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>
</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>Ammonia derivative</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>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>

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Revised: October 7, 2002
SECTION 3 HAZARDS IDENTIFICATION

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, dullness and sore throat.

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

Skin:
- May cause mild irritation and no sensitization 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
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

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:
- Avoid contact with skin, eyes and clothing.
- When contact, wash out immediately.
- Use with adequate ventilation.

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. (Also refer to 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 liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight odor</td>
</tr>
<tr>
<td>pH</td>
<td>9.5 - 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>48.0 (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>515 (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</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>1.5 - 2.1</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 and Ammonia</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>☒ May 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: 
Non irritant, Maximum Group Mean Score = 0.0, Class 1 (rabbit)
16 CFR 1500.42

Skin: 
Mild irritant, Primary Irritation Index = 1.1 (rabbit)
16 CFR 1500.41

Sensitization:
Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)
96/54/EC  Method B6

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

Reproductive Toxicity:
Not available

Carcinogenicity:
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.

Others: 
Not available

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SECTION 12 ECOLOGICAL INFORMATION

Mobility: Not available

Persistence / Degradability: Not available

Bioaccumulation: Not available

Bioaccumulation: 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

(EEC)2455/92: Not regulated

Others: None

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Information on the Label under FHSA:

Signal Word: Not applicable

Hazard warning:
Not applicable

Safety Advice:
Not applicable

Hazardous Component(s):
Not applicable

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)</td>
<td>2 - 6</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.
R67 : Vapours may cause drowsiness or dizziness.

<Revised information from the previous version>
Entirely revised.
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
- EU Regulation (EC)2037/2000, (EC)2455/92
- 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 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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