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

**Product Name:** Canon Ink Cartridge BCI-21 Color  
**Product Code:** 0955A / F47-0741  
**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

**Date of Issue:** February 16, 1996  
**Revised:** December 18, 2002

## SECTION 2  COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS # / EC #</th>
<th>Weight %</th>
<th>EU Symbol / R-Phrase</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>EU ILV</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) | Not established | Not established | Not established |
| Thiodiglycol  | 111-48-8 / 203-874-3 | 5 - 10   | Xi / R36              | Not established | Not established | Not established | Not established |
| Copper compound (Contained only in cyan ink) | Confidential | 2 - 6   | None / None           | 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               | TWA = 400 ppm, 980 mg/m³ | Not established | 200 ppm, 500 mg/m³ |
| C.I. Direct Yellow 173 (Contained only in yellow ink) | Not registered / 414-410-6 | 1 - 3   | Xi / R41              | Not established | Not established | Not established | Not established |
| C.I. Direct Violet 107 (Contained only in magenta ink) | Not registered / 413-180-4 | 1 - 3   | Xi / R41              | Not established | Not established | Not established | Not established |
| Poly(oxy-1,2-ethanediyl) .alpha., .alpha.-[1,4-dimethyl-1,4-bis(2-methylpropyl)-2-butyne-1,4-diy]bis.[omega.-hydroxy-Amino] 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 |

EU Symbol:  
*Xi* / R36

OSHA PEL:  
- TWA = 15 mg/m³
- TWA = 5 mg/m³
- TWA = 400 ppm, 980 mg/m³
- TWA = 400 ppm, 983 mg/m³
- STEL = 500 ppm, 1230 mg/m³
- TWA = 400 ppm, 500 mg/m³
- TWA = 400 ppm, 983 mg/m³
- STEL = 500 ppm, 1230 mg/m³
- TWA = 400 ppm, 500 mg/m³
- TWA = 400 ppm, 983 mg/m³
- STEL = 500 ppm, 1230 mg/m³

ACGIH TLV:  
- Not established
- TWA = 400 ppm, 980 mg/m³
- TWA = 400 ppm, 983 mg/m³
- STEL = 500 ppm, 1230 mg/m³
- 200 ppm, 500 mg/m³

EU ILV:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established

DFG MAK:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established

EU Symbol/ R-Phrase:  
- Xi / R36
- Xi / R36
- Xi / R41
- Xi / R41
- Xi / R41
- None / None
- None / None
- None / None
- None / None

CAS #:  
- 56-81-5
- 200-289-5
- 111-48-8
- 203-874-3
- Confidential
- 67-63-0
- 200-661-7
- Confidential
- Not registered
- Not registered
- 9014-85-1
- Not applicable
- Confidential
- 7732-18-5
- 231-79-12

EC #:  
- 300-671-5
- 200-726-9
- 200-661-7
- Confidential
- Confidential
- Confidential
- Confidential
- Confidential
- Not applicable
- Not applicable
- Confidential
- Confidential

Weight %:  
- 5 - 10
- 5 - 10
- 2 - 6
- 1 - 3
- 1 - 3
- 1 - 3
- 5 - 10
- 60 - 80

OSHA PEL:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established

ACGIH TLV:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established

EU ILV:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established

DFG MAK:  
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
- Not established
<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 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.
Glycerin mist may cause physical irritation and difficulty breathing.
Over exposure to isopropyl alcohol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat.

Ingestion:
Ingestion of glycerin and/or isopropyl alcohol may cause headache, nausea, dizziness, vomiting, drowsiness, abdominal pain, dullness 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 sensitization 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
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:
       ☑ 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>Cyan, magenta and yellow liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Slight odor</td>
</tr>
<tr>
<td>pH:</td>
<td>8.2 - 10.3</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. Do not sustain combustion.)</td>
</tr>
<tr>
<td>Flammable (Explosive) Limits:</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature(°C):</td>
<td>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>
</tbody>
</table>

### EXPLOSIVE PROPERTIES:
- None

### OXIDIZING PROPERTIES:
- None

### VAPOR PRESSURE:
- Not available

### VAPOR DENSITY:
- Not available

### DENSITY / SPECIFIC GRAVITY:
- 1.04 - 1.10

### WATER SOLUBILITY:
- Miscible

### FAT SOLUBILITY:
- Not available

### PARTITION COEFFICIENT (n-Octanol/Water):
- Not available

### PERCENT VOLATILE (%):
- 60 - 80

### EVAPORATION RATE:
- Not available

### VISCOSITY (mPa s):
- 1.9 - 2.6

## SECTION 10 STABILITY AND REACTIVITY

### STABILITY:
- □ Stable
- □ Unstable

### CONDITIONS TO AVOID:
- None

### MATERIALS TO AVOID:
- Acids, bases, oxidizing materials and reducing agents

### HAZARDOUS DECOMPOSITION PRODUCTS:
- CO, CO₂, NOx, Ammonia and SOx

### HAZARDOUS POLYMERIZATION:
- □ May Occur
- □ Will Not Occur

### CONDITIONS TO AVOID:
- None

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SECTION 11    TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:
Not available

Ingestion:
Not available

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

Skin:
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:
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
(EEC)2455/92: Not regulated
Others: None

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< 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;Copper Compounds&quot; (Contained only in cyan ink)</td>
<td>2 - 6 (&lt; 0.35)</td>
</tr>
</tbody>
</table>

(as Cu)

California Proposition 65:

Chemical Name

None

< 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

<SECTION 2 Ingredient(s) / Substance name(s)>

"C. I. Direct Violet 107":

"A mixture of: sodium 5-[8-[4-[4-[7-(3,5-dicarboxylatophenylazo)-8-hydroxy-3,6-disulfonaphthalen-1-ylamino]-6-hydroxy-1,3,5-triazin-2-yl] -2,5-dimethylpiperazin-1-yl]-6-hydroxy-1,3,5-triazin-2-ylamino]-1-hydroxy-3,6-disulfonophthalen-2-ylazo] -isophthalic acid; ammonium 5-[8-[4-[4-[7-(3,5-dicarboxylatophenylazo)-8-hydroxy-3,6-disulfonaphthalen-1-ylamino]-6-hydroxy-1,3,5-triazin-2-yl] -2,5-dimethylpiperazin-1-yl]-6-hydroxy-1,3,5-triazin-2-ylamino]-1-hydroxy-3,6-disulfonophthalen-2-ylazo] -isophthalic acid; 5-[8-[4-[4-[7-(3,5-dicarboxylatophenylazo)-8-hydroxy-3,6-disulfonaphthalen-1-ylamino]-6-hydroxy-1,3,5-triazin -2-yl] -2,5-dimethylpiperazin-1-yl]-6-hydroxy-1,3,5-triazin-2-ylamino]-1-hydroxy-3,6-disulfonaphthalen-2-ylazo]-isopthalic acid"

<R phrase list>

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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