

## MATERIAL SAFETY DATA SHEET

 MSDS #: IC1180-0101  
 Product Code: 0955A / F47-0741

### 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

### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

#### < Ingredient(s) >

Chemical Name / Generic name	CAS # / EC #	Weight %	EU Symbol/ R-Phrase	USA OSHA PEL	ACGIH TLV	EU ILV	DFG MAK
Glycerin	56-81-5 / 200-289-5	5 - 10	None / None	(as mist) Total dust TWA = 15 mg/m <sup>3</sup> Respirable fraction TWA = 5 mg/m <sup>3</sup>	(as mist) TWA = 10 mg/m <sup>3</sup>	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/m <sup>3</sup>
Isopropyl alcohol	67-63-0 / 200-661-7	1 - 3	F / R11 Xi / R36 R67	TWA = 400 ppm, 980 mg/m <sup>3</sup>	TWA = 400 ppm, 983 mg/m <sup>3</sup> STEL = 500 ppm, 1230 mg/m <sup>3</sup>	Not established	200 ppm, 500 mg/m <sup>3</sup>
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 - The substance name in accordance with 67/547/EEC is stated in SECTION 16 (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-b utyne-1,4-diyl]bis[.omega -hydroxy- Ammonia derivative	9014-85-1 / Not applicable	1 - 3	Xi / R41	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

**< 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

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**SECTION 5 FIRE FIGHTING MEASURES****Fire Fighting Measures:****Extinguishing Media:**CO<sub>2</sub>, 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<sub>2</sub>, NO<sub>x</sub> and SO<sub>x</sub>**Other Properties:**

None

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**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.

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**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.

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**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

<b>Appearance:</b>	Cyan, magenta and yellow liquid
<b>Odor:</b>	Slight odor
<b>pH:</b>	8.2 - 10.3
<b>Boiling Point/Range(°C):</b>	Not available
<b>Melting Point/Range(°C):</b>	Not available
<b>Decomposition Temperature(°C):</b>	Not available
<b>Flash Point(°C):</b>	Estimate 55 - 57 (Tag.closed cup. Do not sustain combustion.)
<b>Flammable (Explosive) Limits:</b>	Not available
<b>Autoignition Temperature(°C):</b>	Estimate 460 - 490 (ASTM-E659)
<b>Flammability:</b>	Classified as "Combustible liquid" under OSHA-HCS. Not classified as "flammable" or "combustible" under FHSA. Not classified as "flammable" under 1999/45/EC.
<b>Explosive Properties:</b>	None
<b>Oxidizing Properties:</b>	None
<b>Vapor Pressure :</b>	Not available
<b>Vapor Density :</b>	Not available
<b>Density / Specific Gravity:</b>	1.04 - 1.10
<b>Water Solubility :</b>	Miscible
<b>Fat Solubility :</b>	Not available
<b>Partition Coefficient (n-Octanol/Water):</b>	Not available
<b>Percent Volatile (%):</b>	60 - 80
<b>Evaporation Rate:</b>	Not available
<b>Viscosity (mPa s):</b>	1.9 - 2.6

### SECTION 10 STABILITY AND REACTIVITY

<b>Stability:</b>	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
<b>Conditions to Avoid:</b>	None
<b>Materials to Avoid:</b>	Acids, bases, oxidizing materials and reducing agents
<b>Hazardous Decomposition Products:</b>	CO, CO <sub>2</sub> , NO <sub>x</sub> , Ammonia and SO <sub>x</sub>
<b>Hazardous Polymerization:</b>	<input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur
<b>Conditions to Avoid:</b>	None

**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)  
 OECD Guidelines No.406 (1992)  
 96/54/EC Method B6  
 Cyan and Yellow : Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)  
 OECD Guidelines No.406 (1992)  
 92/69/EEC Method B6

**Mutagenicity:**

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

**Reproductive Toxicity:**

Not available

**Carcinogenicity:**

Not available

**Others:**

Not available

**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  No **Chemical name (wt%):****Special Precautions:** None**SECTION 15 REGULATORY INFORMATION**

## &lt; EU Information &gt;

**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

< 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:**

Chemical Name	Weight %
"Copper Compounds" (Contained only in cyan ink) (as Cu)	2 - 6 (< 0.35)

**California Proposition 65:**

Chemical Name	Weight %
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-disulfonatonaphthalen-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-disulfonatonaphthalen-2-ylazo]-isophthalate; ammonium 5-[8-[4-[4-[7-(3,5-dicarboxylatophenylazo)-8-hydroxy-3,6-disulfonatonaphthalen-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-disulfonatonaphthalen-2-ylazo]-isophthalate; 5-[8-[4-[4-[7-(3,5-dicarboxylatophenylazo)-8-hydroxy-3,6-disulfonatonaphthalen-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-disulfonatonaphthalen-2-ylazo]-isophthalic acid"

<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.

**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
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67/548/EEC, 1999/45/EC
- EU Regulation (EC)2037/2000, (EEC)2455/92
- 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.  
EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC and 2000/39/EC.  
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).  
WHMIS: Workplace Hazardous Materials Information System.  
NOHSC: National Occupational Health and Safety Commission Act 1985.

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