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# MATERIAL SAFETY DATA SHEET

MSDS #: IC1177-0202
Product Code: 8191A

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

**COMPANY/UNDERTAKING** 

**Product Name:** Canon Ink Tank BCI-15 Color

**Product Code:** 8191A

**Company Name:** Canon Europa N.V.

Address: Bovenkerkerweg 59-61, 1185 XB, Amstelveen, The Netherland

Use of the Product: Ink for Ink Jet Printer

# SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

| < Ingredient(s) ><br>Chemical Name /<br>Generic name   | CAS#/<br>EC#              | Weight  | EU Symbol/<br>R-Phrase     | USA<br>OSHA PEL   | ACGIH TLV   | EU ILV  | DFG MAK  |
|--|---------------------------|---------|----------------------------|---|---|---|--|
| Glycerin   | 56-81-5 /<br>200-289-5    | 5 - 10  | None / None                | (as mist) Total dust TWA = 15 mg/m³ Respirable fraction TWA = 5 mg/m³ | (as mist)<br>TWA = 10 mg/m <sup>3</sup>   | Not established   | Not established  |
| Ethylene glycol<br>(Contained in cyan and<br>magenta ink)  | 107-21-1 /<br>203-473-3   | 2 - 6   | Xn / R22                   | Not established   | (aerosol)<br>Ceiling =<br>100 mg/m³   | $TWA = 20 \text{ ppm},$ $52 \text{ mg/m}^3$ $STEL = 40 \text{ ppm},$ $104 \text{ mg/m}^3$ | 10 ppm, 26 mg/m <sup>3</sup>                                   |
| Diethylene glycol  | 111-46-6 /<br>203-872-2   | 2 - 6   | Xn / R22                   | Not established   | Not established   | Not established   | 10 ppm, 44 mg/m <sup>3</sup>                                   |
| Copper, [29H,31H-phthalocyaninato(2-)- N29,N30,N31,N32]-, aminosulfonyl sulfo derivs., sodium salts (Contained only in cyan ink) | 90295-11-7 /<br>291-001-7 | 2 - 6   | Xi / R41                   | Not established   | Not established   | Not established   | Copper and its<br>compounds<br>Inhalable fraction<br>1.0 mg/m³ |
| Isopropyl alcohol  | 67-63-0 /<br>200-661-7    | 1 - 3   | F / R11<br>Xi / R36<br>R67 | TWA = 400 ppm,<br>980 mg/m <sup>3</sup>                               | TWA = 200 ppm,<br>492 mg/m <sup>3</sup><br>STEL = 400 ppm,<br>984 mg/m <sup>3</sup> | Not established   | 200 ppm,<br>500 mg/m <sup>3</sup>                              |
| Quinoline derivative<br>(Contained only in<br>magenta ink)   | Confidential              | 1 - 3   | Xi / R36                   | Not established   | Not established   | Not established   | Not established  |
| Triazine derivative<br>(Contained only in<br>magenta ink)  | Confidential              | 1 - 3   | Xi / R36<br>R52/53         | Not established   | Not established   | Not established   | Not established  |
| Ammonia derivative   | Confidential              | 5 - 10  | None / None                | Not established   | Not established   | Not established   | Not established  |
| Lactam<br>(Contained in cyan and<br>yellow ink)  | Confidential              | < 6     | None / None                | Not established   | Not established   | Not established   | Not established  |
| Water  | 7732-18-5 /<br>231-79-12  | 60 - 80 | None / None                | Not established   | Not established   | Not established   | Not established  |



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# < 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 tanks. (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.

#### Eve:

May cause minimal irritation. (See SECTION 11)

#### Skin.

May cause mild irritation and no sensitization. (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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| SECTION 5 FIRE  | E FIGHTING MEASURES                                |  |  |  |  |
|---|--|--|--|--|--|
| Fire Fighting Measures  | :  |  |  |  |  |
| <b>Extinguishing Medi</b>   |  |  |  |  |  |
| CO <sub>2</sub> , water, foam   |  |  |  |  |  |
| Unsuitable Extingui<br>None   | shing Media:                                       |  |  |  |  |
| Special Fire Fightin None   | g Procedures:                                      |  |  |  |  |
| Unusual Fire and E<br>None  | xplosion Hazards:                                  |  |  |  |  |
| Fire and Explosive Proj   | perties (See also Section 9):                      |  |  |  |  |
| Hazardous Combustion Products:  |  |  |  |  |  |
| CO, CO <sub>2</sub> and NOx   |  |  |  |  |  |
| Other Properties:  None   |  |  |  |  |  |
| SECTION 6 ACC   | CIDENTAL RELEASE MEASURES                          |  |  |  |  |
| <b>Personal Precautions:</b>  |  |  |  |  |  |
| Avoid contact with sk   |  |  |  |  |  |
| Environmental Precaut   | ions:<br>ver, surface water or ground water.       |  |  |  |  |
| Method for Cleaning U   |  |  |  |  |  |
| Wipe off with wet clo   |  |  |  |  |  |
|   | ^ <b>^</b>   |  |  |  |  |
| SECTION 7 HAN   | NDLING AND STORAGE                                 |  |  |  |  |
| Handling:   |  |  |  |  |  |
| Use with adequate ventilation.  Avoid contact with skin, eyes and clothing. |  |  |  |  |  |
|   | sh out the contaminated area immediately.          |  |  |  |  |
| Storage:  |  |  |  |  |  |
| 0   | y 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 EXP   | OSURE CONTROLS / PERSONAL PROTECTION               |  |  |  |  |
| <b>Exposure Guidelines:</b> Not established for the                         | nis ink. (See also SECTION 2)                      |  |  |  |  |
| <b>Engineering Controls:</b>  |  |  |  |  |  |
| Use adequate ventilate  | ion.   |  |  |  |  |
| <b>Personal Protection Eq</b>   |  |  |  |  |  |
| Respiratory Protec  | tion: ☐ Required  ☑ Not Required                   |  |  |  |  |
| Eye/Face Protection   | Required  ☑ Not Required                           |  |  |  |  |
| Skin Protection:  | ☐ Required  Not Required                           |  |  |  |  |

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| SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES          |   |  |  |  |
|---|---|--|--|--|
| Appearance:   | Cyan, magenta and yellow liquid   |  |  |  |
| Odor:   | Slight odor   |  |  |  |
| pH:   | 8.0 - 10.0  |  |  |  |
| <b>Boiling Point/Range(°C):</b>                     | Not available   |  |  |  |
| <b>Melting Point/Range(°C):</b>                     | Not available   |  |  |  |
| <b>Decomposition Temperature</b> ( ${}^{\circ}C$ ): | Not available   |  |  |  |
| Flash Point(°C):                                    | Estimate: 55 - 57 (Tag.Closed Cup. Combustion is not sustainable.)  |  |  |  |
| Flammable (Explosive) Limits:                       | Not available   |  |  |  |
| Autoignition Temperature ( $^{\circ}$ C):           | Not available   |  |  |  |
| Flammability:                                       | Classified as "Combustible liquid" under OSHA-HCS.<br>Not classified as "flammable" or "combustible" under FHSA.<br>Not classified as "flammable" under 1999/45/EC. |  |  |  |
| <b>Explosive Properties:</b>                        | None  |  |  |  |
| Oxidizing Properties:                               | None  |  |  |  |
| Vapor Pressure :                                    | Not available   |  |  |  |
| Vapor Density:                                      | Not available   |  |  |  |
| <b>Density / Specific Gravity:</b>                  | 1.04 - 1.10   |  |  |  |
| Water Solubility:                                   | Miscible  |  |  |  |
| Fat Solubility:                                     | Not available   |  |  |  |
| Partition Coefficient (n-Octanol/Water):            | Not available   |  |  |  |
| Percent Volatile (%):                               | 60 - 80   |  |  |  |
| <b>Evaporation Rate:</b>                            | Not available   |  |  |  |
| Viscosity (mPa s):                                  | 1.9 - 2.6   |  |  |  |
| SECTION 10 STABILITY AND REACTIVITY                 |   |  |  |  |
| Stability:  |   |  |  |  |
| Conditions to Avoid:                                | None  |  |  |  |
| Materials to Avoid:                                 | Acids, bases, oxidizing materials and reducing agents   |  |  |  |
| <b>Hazardous Decomposition Products:</b>            | CO, CO <sub>2</sub> , NOx and Ammonia   |  |  |  |
| 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:** 

Cyan and Magenta: [Data of similar composition ink] Estimated LD<sub>50</sub> > 2500 mg/kg (rat)

OECD Guidelines No.423 (1996)

96/54/EC Method B1 tris Yellow : Not available

Eye:

Yellow: Minimal irritant, Maximum Group Mean Score = 4.7, Class 3 (rabbit) Cyan and Magenta: [Data of similar composition ink] Minimal irritant (rabbit)

OECD Guidelines No.405 (1987)

92/69/EEC Method B5

Skin:

Yellow: Mild irritant, Primary Irritation Index = 0.2 (rabbit)

Cyan and Magenta: [Data of similar composition ink] Mild irritant (rabbit)

OECD Guidelines No.404 (1992)

92/69/EEC Method B4

**Sensitization:** 

Yellow: Non sensitizer, Sensitization rate = 0 % (0/10) (guinea pig)

Cyan and Magenta: [Data of similar composition ink] Non sensitizer (guinea pig)

OECD Guidelines No.406 (1992)

96/54/EC Method B6

**Mutagenicity:** 

Ames test:

All colors: Negative (test strains: S.typhimurium & E.Coli)

Chromosome aberration test:

Magenta: Negative (test strains: *Human peripheral blood lymphocytes*)

Cyan and Yellow: Not available

Reproductive Toxicity:

Not available

Carcinogenicity:

Not available

Others:

Not available

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| SECTION 12 E   | CCOLOGICAL INFORMATION                              |  |  |  |  |
|--|---|--|--|--|--|
| <b>Mobility:</b>   | Not available                                       |  |  |  |  |
| Persistence<br>/ Degradability:                              | Not available                                       |  |  |  |  |
| <b>Bioaccumulation:</b>                                      | Not available                                       |  |  |  |  |
| <b>Ecotoxicity:</b>  | Not available                                       |  |  |  |  |
| Other Adverse Effec  | Not available Not available                         |  |  |  |  |
| SECTION 13 D   | DISPOSAL CONSIDERATION                              |  |  |  |  |
| Method of Disposal:  |   |  |  |  |  |
| Disposal should be subject to federal, state and local laws. |   |  |  |  |  |
| SECTION 14 T   | TRANSPORT INFORMATION                               |  |  |  |  |
| UN #:  | None  |  |  |  |  |
| <b>UN Shipping Name:</b>                                     | None  |  |  |  |  |
| UN Classification:   | None  |  |  |  |  |
| <b>UN Packing Group:</b>                                     | None  |  |  |  |  |
| Marine Pollutant:  | ☐ Yes Chemical name (wt%):  No                      |  |  |  |  |
| <b>Special Precautions:</b>                                  | None  |  |  |  |  |
| CECTION 15 D   | DECLIF A TODAY INFORMATION                          |  |  |  |  |
| SECTION 15 R < EU Information >                              | REGULATORY INFORMATION                              |  |  |  |  |
| Information on the I   | Label:  |  |  |  |  |
|  | ation: Not required                                 |  |  |  |  |
| <b>R-Phrase:</b> Not required                                |   |  |  |  |  |
| S-Phrase:  |   |  |  |  |  |
| Not required   |   |  |  |  |  |
| Dangerous Component(s): None                                 |   |  |  |  |  |
| Special Precaution   | ons under 1999/45/EC Annex V:                       |  |  |  |  |
| Not required   |   |  |  |  |  |
| Specific Provisions in                                       | n 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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# < 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 %

 "Ethylene glycol" (107-21-1) (Contained in cyan and magenta ink)
 2 - 6

 "Copper Compounds" (Contained only in cyan ink)
 2 - 6

(as Cu) (< 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

<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.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

<Revised information from the previous version>

Section 2, 3, 4, 7, 8, 11 and 13





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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
- 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, (EC)304/2003
- 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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