

MATERIAL SAFETY DATA SHEET

| SECTION 1 | IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING | | |
|---------------|--|--|--|
| Product Name: | Canon Ink Cartridge BCI-17Black | | |
| Product Code: | 0961A / F47-2721 | | |
| 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

| < 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 | 2 - 6 | None / None | (as mist) Total dust TWA = 15 mg/m^3 Respirable fraction TWA = 5 mg/m^3 | (as mist) TWA = 10 mg/m ³ | Not established | Not established |
| Ethylene glycol | 107-21-1 / 203-473-3 | 2 - 6 | Xn / R22 | Not established | (aerosol) Ceiling = 100 mg/m ³ | TWA = 20 ppm, 52 mg/m ³ STEL = 40 ppm, 104 mg/m ³ | 10 ppm, 26mg/m ³ |
| Isopropyl alcohol | 67-63-0 / 200-661-7 | 2 - 6 | F / R11 Xi / R36 R67 | TWA = 400 ppm, 980 mg/m ³ | TWA = 200 ppm, 492mg/m ³ STEL = 400ppm, 984 mg/m ³ | Not established | 200 ppm, 500 mg/m ³ |
| Ammonia derivative | Confidential | 5 - 10 | None / None | Not established | Not established | Not established | Not established |
| Water | 7732-18-5 / 231-79-12 | 65 - 85 | 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:

Ink cartridge containing black liquid ink 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



SECTION 5 FIRE FIGHTING MEASURES

Fire Fighting Measures:

Extinguishing Media:

 CO_2 , 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_2 and NOx

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
 Xot Required

 Eye/Face Protection:

 Required
 Xot Required

 Skin Protection:

 Required
 Xot Required

 Mot Required

 Not Required



SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Black liquid |
|--|---|
| Odor: | Slight odor |
| pH: | 9.5 - 10.5 |
| Boiling Point/Range(°C): | Not available |
| Melting Point/Range(°C): | Not available |
| Decomposition Temperature(°C): | Not available |
| Flash Point(°C): | 49.0 (Tag Closed Cup. Combustion is not sustainable.) |
| Flammable (Explosive) Limits: | Not available |
| Autoignition Temperature(°C): | Not available |
| Flammability: | Classified as "Combustible liquid" under OSHA-HCS. Not classified as "flammable" or "combustible" under FHSA. Not classified as "flammable" under 1999/45/EC. |
| 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 (%): | 65 - 85 |
| Evaporation Rate: | Not available |
| Viscosity (mPa s): | 1.5 - 2.1 |
| SECTION 10 STABILITY AND REA | ACTIVITY |
| Stability: | Stable Unstable |
| Conditions to Avoid: | None |
| Materials to Avoid: | Acids, bases, oxidizing materials and reducing agents |
| Hazardous Decomposition Products: | CO, CO ₂ , NOx and Ammonia |
| Hazardous Polymerization: | ☐ May Occur ☑ Will Not Occur |

None

Conditions to Avoid:



| SECTION 11 TOXICOLOGICAL INFORMATION | | | |
|--|--|--|--|
| Acute Toxicity: | | | |
| Inhalation: | | | |
| Not available | | | |
| Ingestion: | | | |
| Not available | | | |
| Eye: | | | |
| Minimal irritant, Maximum Group Mean Score = 2.7, Class 3 (rabbit) | | | |
| OECD Guidelines No.405 (1987) | | | |
| 92/69/EEC Method B5 | | | |
| Skin: | | | |
| Non irritant, Primary Irritation Index = 0.0 (rabbit) | | | |
| OECD Guidelines No.404 (1992) | | | |
| 92/69/EEC Method B4 | | | |
| Sensitization: | | | |
| Non sensitizer, Sensitization rate = $0 \% (0/10)$ (guinea pig) | | | |
| OECD Guidelines No.406 (1992) | | | |
| 96/54/EC 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 Eff | Not available | | | | | |
| SECTION 13 | DISPOSAL CONSIDERATION | | | | | |
| Method of Disposa Disposal shoul | l: d be subject to federal, state and local laws. | | | | | |
| SECTION 14 | TRANSPORT INFORMATION | | | | | |
| UN #: | None | | | | | |
| UN Shipping Nam | e: None | | | | | |
| UN Classification: | None | | | | | |
| UN Packing Group | None None | | | | | |
| Marine Pollutant: | ☐ Yes Chemical name (wt%): ☑ No | | | | | |
| Special Precaution | ns: None | | | | | |
| SECTION 15 | REGULATORY INFORMATION | | | | | |
| < EU Information > Information on th | | | | | | |
| Symbol & Indi | | | | | | |
| R-Phrase: | ^ | | | | | |
| Not require | d | | | | | |
| S-Phrase: Not require | d | | | | | |
| Dangerous Con None | mponent(s): | | | | | |
| Special Precau Not require | tions under 1999/45/EC Annex V: d | | | | | |
| Specific Provision | is in Relation to Protection of Man or the Environment: | | | | | |
| 76/769/EEC: | Not regulated | | | | | |
| (EC)2037/200 | | | | | | |
| (EC)304/2003 | 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 % | |
| "Ethylene glycol " (107-21-1) | | 2 - 6 | |
| California Proposition 65: Chemical Name | | Weight % | |
| None | | | |
| < Canada Information > WHMIS Controlled Product: | Not applicable (Manufactured article) | | |
| | Not applicable (Manufactured article) | | |
| < Australia Information > Statement of Hazardous Nature: | Not classified as hazardous according to criteria of NOHSC. | | |
| SECTION 16 OTHER INFOR | MATION | | |
| <r list="" phrase=""> R11 : Highly flammable. R22 : Harmful if swallowed. R36 : Irritating to eyes. R67 : Vapours may cause drov</r> | wsiness 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, (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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