



MATERIAL SAFETY DATA SHEET

F45-1311
IC0170-0103

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

Product Name: COLOUR BJ CARTRIDGE BC-22e PHOTO

STATEMENT OF HAZARDOUS NATURE: Not classified as hazardous according to the criteria on Worksafe Australia.

Manufacturer: Canon Inc.
30-2, Shimomaruko 3-Chome, Ohta-ku Tokyo, Japan
Phone: 03-3758-2111Distributor: Canon Australia Pty Ltd
1 Thomas Holt Drive
North Ryde NSW 2113
Phone: (02) 9805-2000

Date of preparation: 9 September 1997

Revised: 13 October 1997

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)

Chemical Name	CAS#	Weight %	EU Symbol	EU R-Phrase
Glycerin	56-81-5	5-10	None	None
Ethylene glycol (contained only in black ink)	107-21-1	<10	Xn	R22
Isopropyl alcohol	67-63-0	<5	No Concern with health	No Concern with health

Chemical Name	USA OSHA PEL	ACGIH TLV
Glycerin	(as mist) Total dust TWA=15 mg/m3 Respirable fraction TWA=5mg/m3	(as mist) Total dust TWA=10 mg/m3
Ethylene glycol (contained only in black ink)	None	(aerosol) Ceiling= 39.4 ppm, 100mg/m3
Isopropyl alcohol	TWA=400 ppm, 980mg/m3	TWA=400 ppm, 983mg/m3 STEL=500 ppm, 1230mg/m3

Chemical Name	EU ILV	DFG MAK
Glycerin	None	None
Ethylene glycol (contained only in black ink)	None	MAK= 10ppm, 26mg/m3
Isopropyl alcohol	None	MAK=400 ppm, 980mg/m3

Date of Issue: September 11, 1997

Revised:



 SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS – Continued

Carcinogen

Chemical Name	CAS #	Reference
None		

Other Ingredient(s)

Chemical / Generic Name	Weight %
Water	70 – 90 (Black ink) 60 – 90 (Colour ink)
Water-soluble organic compound	5 – 10
Water-soluble organic solvent	5 – 10

 SECTION 3 HAZARDS IDENTIFICATION

Emergency Overview: A set of four colours ink cartridge, (Black, cyan, magenta, yellow)
All the ink is liquid mixture with slight odour.

Potential Health Effects and Symptoms:

Inhalation: No effects are expected under intended use.
May be harmful if inhaled in large amount.

Ingestion: May be harmful if swallowed.

Eye: Black: May be no irritant based on the animal test data of similar composition ink.
Colour: May cause slight irritation based on the animal test data.

Skin: Black : May cause slight irritation based on the animal test data of similar composition ink.
Colour: May be non-irritating based on the animal test data.

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 person breathes in large amounts, remove to fresh air.
Get medical attention.

Ingestion: Give one or two glasses of water.
Call a physician.

Eye: Immediately flush with water for 15 minutes.
If irritation persists, get medical attention.

Skin: Wash with water and detergent.
If irritation persists, get medical attention.

Note to Physicians: None.

SECTION 5 FIRE FIGHTING MEASURES

Fire Fighting Measures:

Extinguishing Media: CO₂, Water or dry chemicals.

Unsuitable Extinguishing Media: None.

Special Fire Fighting Procedures: None.

Unusual Fire and Explosion Hazards: None.

Fire and Explosive Properties:

Flash Point (°C): Black: 47.8°C (estimated), Colour : 56°C (c.c. combustion not continued)

Flammable (Explosive) Limits: No data available.

Autoignition Temperature (°C): Black: 539 °C (estimated according to the similar ink)
Colour: 470°C (ASTM-E659)

Flammability: Classified as “combustible liquid” under OSHA-HCS (USA) and
“non-flammable” under 88/379/EEC(EU).



SECTION 5 FIRE FIGHTING MEASURES - Continued

Fire and Explosive Properties – Continued:

Autoflammability: None.

Explosive Properties: None.

Oxidising Properties: None.

Hazardous
Combustion Products: CO, CO₂ and NO_x.

Other Properties: None.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin and eyes.

Environmental
Precautions: It is recommended to keep away from drains, surface- and
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.

Storage: Keep out of the reach of children.



SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: Not established.
See SECTION 2

Engineering Controls: Use usual ventilation to keep airborne concentrations below the exposure limit. (See SECTION 2)

Personal Protection Equipment(s):

Respiratory Protection: Required Not Required

Eye / Face Protection: Required Not Required

Skin Protection: Required Not Required

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black, cyan, magenta and yellow liquid

Odour: Slight odour

pH: 8 - 10

Boiling Point / Range (°C): No data available

Melting Point / Range (°C): No data available

Decomposition Temperature (°C): No data available

Flash Point (°C): Black: 47.8°C (estimated), Colour: 56°C (c.c combustion not continued)

Flammable (Explosive) Limits: No data available

Autoignition Temperature (°C): Black: 539 °C (estimated according to the similar ink)

Flammability: Classified as “combustible liquid” under OSHA-HCS(USA) and “non-flammable” under 88/379/EEC(EU).

Autoflammability: None

Explosive Properties: None

Oxidizing Properties: None

Vapour Pressure: No data available

Vapour Density: No data available

Density / Specific Gravity: Black : 1.04, Colour: 1.07- 1.08

Water Solubility: miscible

Fat Solubility: No data available

Partition Coefficient (n-Octanol / Water): No data available

Percent Volatile: No data available

Evaporation Rate: No data available



SECTION 10 STABILITY AND REACTIVITY

Stability: Stable Unstable

Conditions to Avoid: None

Materials to Avoid: None

Hazardous Decomposition Products: CO, CO₂, NO_x and Ammonia

Hazardous Polymerisation May Occur Will Not Occur

Conditions to Avoid: None

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation: No data available

Ingestion: No data available

Eye:

(Yellow ink) Rabbit: Minimally irritating (M1): the calculated maximum Draize score: 4 (EPA (FIFRA) Pesticide Assessment Guideline par. 81-4 "Primary Eye Irritation Study")

(Black) Data of similar composition ink:
Rabbit: Non-irritating: a maximum group mean score = 0.0 (FSHA: US 16CFR 1500.42, According to a modified Key and Calandra system)

Skin:

(Yellow ink) Rabbit: Non-irritating: a primary irritation index of 0.0 (EPA (FIFRA) Pesticide Assessment Guideline par.81-5 "Primary Dermal Irritation Study")

(Black) Data of similar composition ink:
Rabbit: Mild irritant: a primary irritation index = 1.1 (FSHA: US16CFR 1500.41, According to the Draize classification scheme)

Sensitisation: No data available

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

Reproductive Toxicity: No data available



SECTION 11 TOXICOLOGICAL INFORMATION - Continued

Carcinogenicity: No human carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA(USA) regulation and EU Directive (Annex I to Directive 67/548/EEC).

Others: None

SECTION 12 ECOLOGICAL INFORMATION

Mobility: No data available

Persistence /
Degradability: No data available

Bioaccumulation: No data available

Ecotoxicity: No data available

Other Adverse
Effects: No data 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

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

Specific Provisions in Relation to Protection of Man or the Environment:

76/769/EEC: Not regulated

(EC)3093/94: Not regulated

(EEC)2455/92: Not regulated

Others: None

USA Information:

Information on the Label:

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 (contained only in black ink)	<10
Copper compound (contained only in cyan ink)	<5%
As copper metal	<0.2% (maximum)

California Proposition 65:

Chemical Name	Weight
None	

SECTION 16 OTHER INFORMATION

Other Information:

None

Literature Reference:

- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environment 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 Organisation 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, 88/379/EEC and their amendments
- EU Regulation (EC)3093/94, (EEC)2455/92 and their amendments

Abbreviations:

‘EU’ stands for European Union.

‘OSHA PEL’ stands for PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration.

‘ACGIH TLV’ stands for TLV (Threshold Limit Value) under American Conference of Government Industrial Hygienists.

‘EU ILV’ stands for Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC.

‘DFG MAK’ stands for MAK (Maximale Arbeitsplatzkonzentrationen) under Deutsche Forschungsgemeinschaft.

‘TWA’ stands for Time Weighted Average

‘IARC’ stands for International Agency for Research on Cancer.

‘NTP’ stands for National Toxicology Program (USA).

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