
MATERIAL SAFETY DATA SHEET

DATE PREPARED:

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
1.1 Identification of the Substance or Preparation

Product Name: CJ-3A Ink Cassette
 Description: Ink Cassette for Bubble Jet Calculators

1.2 Company Undertaking Identification

Manufacturer: Canon Inc.
 30-2, Shimomaruko
 30 Chome, Ohta-Ku, Tokyo, 146-8501
 Japan
 Phone: 03-3758-2111

Distributor: Canon (UK) Limited
 Woodhatch
 Reigate
 Surrey
 Telephone: (01737) 220000

SECTION 2: COMPOSITION/INFORMATION OF INGREDIENTS

Principal Components	Wt%	CAS #	EU Symbol	EU R-Phrase	DFG MAK
Ethylene glycol	<40	107-21-1	Xn	R22	10ppm, 26mg/m ³
Triethylene glycol	<15	-	-	-	-
Water	>40	-	-	-	-
Dyes	<6	-	-	-	-
Ammonia derivative	5-10	-	-	-	-

All MSDS sheets have been updated to appear in the current 16 paragraph format (previously nine), information requested for the new format which isn't available from the previous format will have No Data Available against it. (As advised by Sedgwick Risk Consultants. Memo dated 28/02/97).

SECTION 3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: Ink cartridge contained black odourless liquid ink. Harmful if swallowed.

POTENTIAL HEALTH EFFECTS AND SYMPTOMS:

INGESTION: May cause stomach upset. Over exposure to ethylene glycol may cause nausea, drowsiness, etc.

INHALATION: No adverse effects are expected under intended use. Prolonged intentional inhalation may result in primary irritation to the respiratory tract.

EYE CONTACT: May cause mild irritation.

SKIN CONTACT: Prolonged contact may cause slight irritation characterised by redness and swelling. Indications may be masked by colour of ink.

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: Obtain medical attention immediately.

EYE CONTACT: Immediately flush with water for 5 minutes. If irritation persists, obtain medical advice immediately.

SKIN CONTACT: Wash with water and soap or mild detergent. If irritation persist, get medical attention.

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 PROCEDURE: None.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS: None.

FIRE AND EXPLOSIVE PROPERTIES:	
FLASH POINT(°C):	>60.5°C (141°F)
FLAMMABLE (EXPLOSIVE) LIMITS:	No data available.
AUTO-IGNITION TEMPERATURE (°C):	No data available.
FLAMMABILITY:	Not flammable.
AUTO-FLAMMABILITY:	No data available.
EXPLOSIVE PROPERTIES:	No data available.
OXIDISING PROPERTIES:	No data available.
HAZARDOUS COMBUSTION PRODUCTS:	Thermal decomposition products may include toxic oxides of carbon such as CO or CO ² .
OTHER PROPERTIES:	None.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Avoid contact with skin, eyes and clothing.
ENVIRONMENTAL PRECAUTIONS:	Recommended to keep away from drains, surface and ground water.
METHOD FOR CLEANING UP:	For small spill, wipe off with wet cloth or paper. For large spill absorb with dry sand.

SECTION 7. HANDLING AND STORAGE

HANDLING:	Nothing under intended use.
STORAGE:	Recommended to storage at room temperature. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:	ETHYLENE GLYCOL: ACGIH TLV: (aerosol) 39.4 ppm (Ceiling) 100 mg/m ³ (Ceiling) (Also refer to Section 2).
ENGINEERING CONTROLS:	Use adequate ventilation.
PERSONAL PROTECTION EQUIPMENT(S):	
RESPIRATORY PROTECTION:	Not Required.
EYE/FACE PROTECTION:	Not Required.
SKIN PROTECTION:	Not Required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Black liquid.
ODOUR:	Odourless.
PH:	No data available.
BOILING POINT/RANGE (°C):	No data available.
MELTING POINT/RANGE (°C):	No data available.
DECOMPOSITION TEMPERATURE (°C):	No data available.
FLASH POINT (°C):	>60.5°C (141°F)
FLAMMABLE (EXPLOSIVE) LIMITS:	Not available.
AUTOIGNITION TEMPERATURE (°C):	Not available.
FLAMMABILITY:	Not flammable.
AUTOFLAMMABILITY:	No data available.
EXPLOSIVE PROPERTIES:	No data available.
OXIDISING PROPERTIES:	No data available.
VAPOUR PRESSURE:	No data available. (Ethylene Glycol: 0.05mmHg)
VAPOUR DENSITY (Air=1):	No data available.
DENSITY/SPECIFIC GRAVITY:	No data available.
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.
CONDITIONS TO AVOID:	None.
MATERIALS TO AVOID:	None.
HAZARDOUS DECOMPOSITION PRODUCTS:	Thermal decomposition products may include toxic oxides of carbon such as CO or CO ² .
HAZARDOUS POLYMERISATION:	Will Not occur.
CONDITIONS TO AVOID:	None.

SECTION 11. TOXICOLOGICAL INFORMATION**ACUTE TOXICITY:**

INHALATION:	Ink: No data available. Ethylene glycol: Inhalation is unlikely at room temperature, due to low vapour pressure.
INGESTION:	Ink: No data available. Ethylene glycol: Oral-human LDLo=786 mg/kg
Revision Date: -	MSDS3185 (CJ-3A)

Oral-human LDLo=398 mg/kg
Oral-rat LD₅₀=4700mg/kg

EYE CONTACT:

Ink: No data available. Ethylene glycol: Vapour or spray at 17 mg/m³/4 weeks produced no ill effects in human. Rats exposed continuously to 12 mg/m³ for several days sometimes showed severe eye irritation, oedema of eyelids, corneal opacity.

SKIN CONTACT:

No data available. Ethylene glycol: May cause minor irritation.

SENSITISATION:

No data available.

MUTAGENICITY:

No data available.

REPRODUCTIVE TOXICITY:

No data available.

CARCINOGENICITY:

No human carcinogen or potential carcinogen, according to IARC Monographs, NTP, OSHA (USA) regulation.

OTHERS:

None.

SECTION 12. ECOLOGICAL INFORMATION

No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

METHOD OF DISPOSAL:

Disposal should be subject to federal, state or local laws.

SECTION 14. TRANSPORT INFORMATION

UN#:

None.

UN SHIPPING NAME:

None.

UN CLASSIFICATION:

None.

UN PACKING GROUP:

None.

SPECIAL PRECAUTION:

None.

SECTION 15. REGULATORY INFORMATION

EU INFORMATION

INFORMATION ON THE LABEL:

SYMBOL AND INDICATION:

Xn (a St Andrew's cross): Harmful

RISK PHRASE:

R22: Harmful if swallowed.

S-PHRASE:

S2: Keep out of reach children.

DANGEROUS INGREDIENTS:

Ethylene glycol (107-21-1)

Revision Date: -

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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:	Warning!
Hazard warning:	Harmful or fatal if swallowed.
Safety Advice:	Keep out of reach of children.
Hazardous Component(s):	Ethylene glycol (107-21-1)

SARA Title III §313:	
Chemical Name	Weight %
Ethylene glycol (107-21-1)	<40

California Proposition 65:	
Chemical Name	Weight %
None	

SECTION 16. OTHER INFORMATION**Literature Reference:**

- U.S. Department of Labour, 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 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.

Other Information:

None

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 Governmental Industrial Hygienists.

"IARC" stands for International Agency for Research on Cancer.

"NTP" stands for National Toxicology Program (USA).

'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.

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