Canon

Date of Issue: October 6, 1999

MATERIAL SAFETY DATA SHEET

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SECTION 1	IDENTIFICATION C COMPANY/UNDER		NCE/PREPAR	ATION AND	OF THE	
Product Name:	Ink Tank BCI-1001C					
Product Code:	F47-2651					
Company Name:	Canon Europa N.V.					
Address:	Bovenkerkerweg 59-61, 1185 XB, Amstelveen, The Netherlands					
Phone #:	03-3758-2111					
MSDS #:	IC0252-0101					
SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS						
Hazardous Ingredie	ent(s)					
Chemical Name		CAS#	Weight %	EU Symbol	EU R-Phrase	
Glycerin		56-81-5	5-10	None	None	
Ethylene glycol		107-21-1	5-10	Xn	R22	
Diethylene glycol		111-46-6	< 5	Xn	R22	
Isopropyl alcohol		67-63-0	< 3	Xi	R36-67	
Chemical Name		USA OSHA PE	 L	ACGIH TL	V	
Glycerin		(as mist) (a		(as mist) TWA = 10 mg/m3		
Ethylene glycol				STEL = 100	$TEL = 100 \text{mg/m}^3$	
Diethylene glycol		Not established		Not established		
Isopropyl alcohol		$TWA = 400 \text{ ppm}, 980 \text{ mg/m}^3$		TWA = 400 ppm, 983 mg/m ³ STEL = 500 ppm, 1230 mg/m ³		
Chemical Name		EU ILV		DFG MAK		
Glycerin			Not established			
Ethylene glycol		Not established TWA = 10 ppm, 26 mg/m ³		pm, 26mg/m³		
Diethylene glycol		Not established TWA = 10 ppm , 44 mg/m^3		opm, 44 mg/m ³		
Isopropyl alcohol		Not established TWA = 200 ppm, 500 mg/m^3				
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	OMPOSITION/INFORMATION ON INGREDIENTS - Continued
Carcinogen Chemical Name None	CAS # Reference
Other Ingredient(s)	
Chemical/Generic 1	C
Water	60-80
Ammonia derivativ	ve 5-10
SECTION 3 H	IAZARDS IDENTIFICATION
Emergency Overview:	Small plastic container containing cyan liquid ink with slight odor. Vapor or mist may cause respiratory tract and eye irritation.
Overview:	Vapor or mist may cause respiratory tract and eye irritation.
Overview:	
Overview: Potential Health Ef	Vapor or mist may cause respiratory tract and eye irritation. fects and Symptoms: No adverse effects are expected under normal use. Over exposure to isopropanol, ethylene glycol and/or diethylene glycol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat. Glycerin mist may cause physical irritation and
Overview: Potential Health Effinhalation:	Fects and Symptoms: No adverse effects are expected under normal use. Over exposure to isopropanol, ethylene glycol and/or diethylene glycol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat. Glycerin mist may cause physical irritation and difficulty breathing. Over ingestion of isopropanol, ethylene glycol, diethylene glycol and/or glycerin may cause nausea, drowsiness, dizziness, vomiting, abdominal pain, headache,
Overview: Potential Health Eff Inhalation: Ingestion:	Vapor or mist may cause respiratory tract and eye irritation. Fects and Symptoms: No adverse effects are expected under normal use. Over exposure to isopropanol, ethylene glycol and/or diethylene glycol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat. Glycerin mist may cause physical irritation and difficulty breathing. Over ingestion of isopropanol, ethylene glycol, diethylene glycol and/or glycerin may cause nausea, drowsiness, dizziness, vomiting, abdominal pain, headache, dullness. May cause minimal irritation based on the animal test data.
Overview: Potential Health Eff Inhalation: Ingestion: Eye:	Fects and Symptoms: No adverse effects are expected under normal use. Over exposure to isopropanol, ethylene glycol and/or diethylene glycol may cause headache, nausea, dizziness, vomiting, drowsiness, cough and sore throat. Glycerin mist may cause physical irritation and difficulty breathing. Over ingestion of isopropanol, ethylene glycol, diethylene glycol and/or glycerin may cause nausea, drowsiness, dizziness, vomiting, abdominal pain, headache, dullness. May cause minimal irritation based on the animal test data. (See SECTION 11) May cause mild irritation based on the animal test data. (See SECTION 11)

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FIRST AID MEASURES **SECTION 4** First Aid Measures: Inhalation: If symptoms are experienced, move victim to fresh air and obtain medical advice. Ingestion: Give one or two glasses of water. If irritation or discomfort occur, 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 persist, obtain medical advice. Note to None Physicians: **SECTION 5** FIRE FIGHTING MEASURES Fire Fighting Measures: CO₂, water, foam or dry chemicals. Extinguishing Media: None Unsuitable Extinguishing Media: None Special Fire Fighting Procedures: None Unusual Fire and **Explosion Hazards:** Fire and Explosive Properties: Flash Point(°C): 56.0 (Tag. closed cup. Do not sustain combustion.) Flammable(Explosive) No data available Limits: Autoignition No data available Temperature(°C): Flammability: Classified as "combustible liquid" under OSHA-HCS(USA) and "non-flammable" under 88/379/EEC(EU)

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SECTION 5 FIRE	FIGHTING MEASURES - Continued			
Fire and Explosive Prop	perties - Continued:			
Autoflammability:	None			
Explosive Properties:	None			
Oxidizing Properties:	None			
Hazardous Combustion Products	CO, CO ₂ and NOx.			
Other Properties:	None			
SECTION 6 ACCI	DENTAL RELEASE MEASURES			
Personal Precautions:	Avoid contact with skin, eyes and clothing.			
Environmental Precautions:	Do not release into sewer, surface water or ground water.			
Method for Cleaning Up:	Wipe off with wet cloth or paper.			
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SECTION 7 HANI	DLING AND STORAGE			
Handling:	Avoid contact with skin, eyes and clothing. When contact, wash out immediately.			
Storage:	Store in a cool and dry place.			

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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION				
1	Not established for this product. (See SECTION 2)			
Engineering Controls: Use usual ventilation to keep airborne concentrations below the exposure limit.(See SECTION 2)				
Personal Protection Equip	ment(s):			
	Required Not Required			
Eye/Face Protection:	Required Not Required			
Skin Protection:	Required Not Required			
SECTION 9 PHYSIC	AL AND CHEMICAL PROPERTIES			
Appearance:	Cyan liquid			
Odor:	Slight order			
pH:	10.2			
Boiling Point/Range(°C):	No data available			
Melting Point/Range(°C):	No data available			
Decomposition Temperatu	ure(°C): No data available			
Flash Point(°C):	56.0 (Tag. closed cup. Do not sustain combustion.)			
Flammable (Explosive) Lin	mits: No data available			
Autoignition Temperature	(°C): No data available			
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			
Vapor Pressure:	No data available			
Vapor Density:	No data available			
Density / Specific Gravity:	1.062			
Water Solubility:	Miscible			
Fat Solubility:	No data available			
Partition Coefficient (n-Octanol/Water):	No data available			
Percent Volatile:	60-80 %			
Evaporation Rate:	No data available			
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SECTION 10 STABILITY AND REACTIVITY			
Stability: Conditions to Avoi			
Materials to Avoid:	None		
Hazardous Decompo Products:	sition CO, CO ₂ , NOx and Ammonia.		
Hazardous Polymeriz Conditions to Avoi			
SECTION 11 TO	KICOLOGICAL INFORMATION		
Acute Toxicity: Inhalation:	No data available		
Ingestion:	No data available		
Eye:	Minimal irritant; (rabbit) Maximum Group Mean Score = 8.7, Class 3 OECD Guidelines No.405 Commission Directive 92/69/EEC Method B5		
Skin:	Mild irritant; (rabbit) Primary Irritation Index (PII) = 0.8 OECD Guidelines No.404 Commission Directive 92/69/EEC Method B4		
Sensitization:	Non sensitizer; (guinea pig) Sensitization rate= 0% (0/10) OECD Guidelines No.406 Commission Directive 92/69/EEC Method B6		
Mutagenicity:	Ames test: Negative (test strains: <i>S.typhimrium</i>)		
Reproductive Toxicity:	No data available		
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SECTION 11 TO	XICOLOGICAL INFORMATION - Continued
Carcinogenicity:	No human carcinogen or potential carcinogen, according to IARC Monographs, NTF OSHA(USA) regulation and EU Directive (Annex I to Directive 67/548/EEC).
Others:	None
SECTION 12 EC	OLOGICAL 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 DIS	SPOSAL CONSIDERATION
Method of Disposal:	Disposal may be subject to federal, state and local laws.
SECTION 14 TR	ANSPORT INFORMATION
UN #: UN Shipping Name: UN Classification: UN Packing Group: Special Precautions:	None None None None None
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SECTION 15 REGULATORY INFORMATION					
EU Information: Information on the Label:					
Symbol &	Not required				
Indication: R-Phrase:	Not required				
S-Phrase:	Not required				
Dangerous Component(s):	None				
Specific Provision	ns in Relation to Protection of	Man or the Environmen	nt:		
76/769/EEC:	Not regulated				
(EC)3093/94:	Not regulated				
(EEC)2455/92	(EEC)2455/92: Not regulated				
Others:	None				
USA Information: Information on the I	_abel:				
Signal Word:	None				
Hazard warning:	COMBUSTIBLE LIQUID AND V VAPOR OR MIST MAY CAUSE		ND EYE IRRITATION.		
Safety Advice:	None				
Hazardous Component(s):	Glycerin(56-81-5) Isopropyl alcohol(67-63-0)	5-10 % < 3 %			
SARA Title III §31			W. 1. 0/		
<u>Chemical Nat</u> Ethylene glyco			<u>Weight %</u> 5-10		
Copper compo			<5		
As Copper			<0.35		
California Propositi					
Chemical Na	me		Weight %		
None					
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SECTION 16	OTHER	INFORMAT	MOL

Other Information:

None

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, 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 Governmental 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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