Page 1 of 8



MATERIAL SAFETY DATA SHEET

MSDS #: IC1011-0101 Product Code: 4706A / F47-3231

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE

COMPANY/UNDERTAKING

Product Name: Canon Ink Tank BCI-6C

Product Code: 4706A / F47-3231
Company Name: Canon Europa N.V.

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

Use of the Product: Ink for Ink Jet Printer

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	5 - 10	None/ None	(as mist) Total dust TWA = 15 mg/m ³	(as mist) TWA = 10 mg/m ³	Not established	Not established
				Respirable fraction TWA = 5 mg/m ³			
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, 26 mg/m ³
Diethylene glycol	111-46-6 / 203-872-2	1 - 5	Xn/ R22	Not established	Not established	Not established	10 ppm, 44 mg/m³
Copper, [29H,31H-phthalocyaninato(2-)- N29,N30,N31,N32]-, aminosulfonyl sulfo derivs., sodium salts	90295-11-7 / 291-001-7	1 - 5	Xi/ R41	Not established	Not established	Not established	Copper and its compounds Inhalable fraction 1.0 mg/m ³
Isopropyl alcohol	67-63-0 / 200-661-7	1 - 3	F/ R11, Xi/ R36, R67	TWA = 400 ppm, 980 mg/m ³	TWA = 400 ppm, 983 mg/m ³ STEL = 500 ppm, 1230 mg/m ³	Not established	200 ppm, 500 mg/m³
Ammonia derivative	Confidential	5 - 10	None/ None	Not established	Not established	Not established	Not established
Lactam	Confidential	5 - 10	None/ None	Not established	Not established	Not established	Not established
Water	7732-18-5 / 231-79-12	55 - 75	None/ None	Not established	Not established	Not established	Not established

MATERIAL SAFETY DATA SHEET

IC1011-0101 MSDS #:

Page 2 of 8

Product Code: 4706A / F47-3231

< Carcinogen > Chemical Name

CAS# Reference

None

SECTION 3 HAZARDS IDENTIFICATION

EU Classification:

Not classified as dangerous

Emergency Overview:

Ink tank containing cyan liquid ink with slight odor.

Potential Health Effects and Symptoms:

Inhalation:

No adverse effects are expected under intended use.

Over exposure to isopropyl alcohol, ethylene glycol and/or diethylene glycol may cause headache, nausea, dizziness, vomiting, drowsiness, sore throat and cough.

Glycerin mist may cause physical irritation and difficulty breathing.

Ingestion:

Ingestion of isopropyl alcohol, ethylene glycol, diethylene glycol and/or glycerin may cause headache, nausea, dizziness, vomiting, drowsiness, sore throat, abdominal pain, dullness and diarrhea.

May cause minimal irritation based on the animal test data. (See SECTION 11)

Skin:

May cause mild irritation and no sensitization based on the animal test data. (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.

Rinse mouth. Give one or two glasses of water.

If irritation or discomfort occurs, 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 persists, obtain medical advice.

Note to Physicians:

None

MATERIAL SAFETY DATA SHEET

IC1011-0101 MSDS #:

Page 3 of 8

Product Code: 4706A / F47-3231 FIRE FIGHTING MEASURES **SECTION 5 Fire Fighting Measures: Extinguishing Media:** CO₂, 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, and NO, **Other Properties:** None **SECTION 6** ACCIDENTAL RELEASE MEASURES **Personal Precautions:** Avoid breathing vapor and mist. 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: Avoid breathing vapor and mist. Use with adequate ventilation. Avoid contact with skin, eyes and clothing. When contact, wash out immediately. **Storage:** Keep away from heat and flame. Keep in a cool and dry place. 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 EXPOSURE CONTROLS / PERSONAL PROTECTION Exposure Guidelines:** Not established for this ink. (Also refer to SECTION 2) **Engineering Controls:** Use adequate ventilation. **Personal Protection Equipment(s): Respiratory Protection:**

Required **☒** Not Required **Eye/Face Protection:** ☐ Required **☒** Not Required **Skin Protection:**

Date of Issue: December 22, 2000 Revised: April 22, 2002

☐ Required ■ Not Required

Page 4 of 8



IC1011-0101 MSDS #: MATERIAL SAFETY DATA SHEET Product Code: 4706A / F47-3231

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES					
Appearance:	Cyan liquid				
Odor:	Slight odor				
pH:	9 - 10				
Boiling Point/Range(°C):	Not available				
Melting Point/Range(°C):	Not available				
Decomposition Temperature (${}^{\circ}$ C):	Not available				
Flash Point(°C):	56.5 (Tag. closed cup. Do not sustain combustion.)				
Flammable (Explosive) Limits:	Not available				
Autoignition Temperature (${}^{\circ}C$):	Not available				
Flammability:	Classified as "Combustible liquid" under OSHA-HCS(USA). Not Classified as "flammable" or "combustible" under FHSA(USA). 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:	1.08				
Water Solubility:	Miscible				
Fat Solubility:	Not available				
Partition Coefficient (n-Octanol/Water)	: Not available				
Percent Volatile (%):	55 - 75				
Evaporation Rate:	Not available				
Viscosity (mPa s):	2.0 - 2.6				
SECTION 10 STABILITY AND R	EACTIVITY				
Stability:	Stable Unstable Unstable				
Conditions to Avoid:	None				
Materials to Avoid:	Acids, bases, oxidizing materials and reducing agents.				
Hazardous Decomposition Products:	CO, CO ₂ , NO _x and Ammonia				
Hazardous Polymerization:	☐ May Occur ☑ Will Not Occur				
Conditions to Avoid:	None				

Page 5 of 8



MATERIAL SAFETY DATA SHEET

MSDS #: IC1011-0101
Product Code: 4706A / F47-3231

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity:

Inhalation:

Not available

Ingestion:

Estimated $LD_{50} > 2500 \text{ mg/kg}$, 0/6 mortalities at 2000 mg/kg (rat)

OECD Guidelines No.423 (1996)

96/54/EC Method B1 tris

Eye:

Minimal irritant, Maximum Group Mean Score = 8.0 Class 3 (rabbit)

OECD Guidelines No.405 (1987)

92/69/EEC Method B5

Skin:

Mild irritant, Primary Irritation Index = 0.3 (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 & E.Coli)

Reproductive Toxicity:

Not available

Carcinogenicity:

No component of this ink is listed as human carcinogens or potential carcinogens in IARC Monographs, NTP, OSHA(USA) regulations or Annex I to Directive 67/548/EEC(EU).

Others:

None

Page 6 of 8 IC1011-0101

MSDS #:

Product Code: 4706A / F47-3231

Canon

Others:

None

MATERIAL SAFETY DATA SHEET

SECTION 12 ECOLOGICAL INFORMATION Not available **Mobility:** Persistence / Degradability: Not available **Bioaccumulation:** Not available **Ecotoxicity:** Not available **Other Adverse Effects:** Not 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 **Marine Pollutant:** ☐ Yes Chemical name (wt%): **⋈** No **Special Precautions:** None **REGULATORY INFORMATION SECTION 15** < EU Information > **Information on the Label:** Symbol & Indication: Not required **R-Phrase:** Not required S-Phrase: Not required **Dangerous Component(s):** None Special Precautions under 1999/45/EC Annex V: Safety data sheet available for professional user on request. Specific Provisions in Relation to Protection of Man or the Environment: 76/769/EEC: Not regulated (EC)2037/2000: Not regulated (EEC)2455/92: Not regulated

Canon

MATERIAL SAFETY DATA SHEET

Page 7 of 8 MSDS #:

IC1011-0101 Product Code: 4706A / F47-3231

< 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 Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, aminosulfonyl sulfo derivs., 1 - 5 sodium salts (90295-11-7) (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.

<Revised information from the previous version>

Entirely revised.



MATERIAL SAFETY DATA SHEET

MSDS #: IC1011-0101
Product Code: 4706A / F47-3231

Page 8 of 8

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, (EEC)2455/92
- 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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