

SHARP

MATERIAL SAFETY DATA SHEET (1/4)

Revised date: 6. Jul. 2004

Issued date: 19. Sep. 2002

MSDS No.: B-1028

Section 1. Product Identification

Product Code: Ink-Cartridge (Mono) UX-C70B, FO-C60B UINK-2034XHZZ, UINK-2035XHZZ, UINK-2036XHZZ

Section 2. Supplier's Name and Address

Sharp Corporation

22-22 Nagaike-cho, Abeno-ku, Osaka, Japan

Local suppliers are listed below. Please contact the nearest supplier for additional information.

Area	Country	Name and Telephone Number
North America	U.S.A	Sharp Electronics Corporation Telephone number for information : 1-800-237-4277 Emergency telephone number : 1-800-255-3924
	Canada	Sharp Electronics of Canada Ltd. Telephone number for information : 905-890-2100 Emergency telephone number : 1-800-424-9300
Oceania	Australia	AUSTRALIA SHARP CORPORATION OF AUSTRALIA PTY. LTD.: (Phone) 02-9830-4600, 1800 807 820
	New Zealand	NEW ZEALAND SHARP CORPORATION OF NEW ZEALAND LTD.: (Phone) 09-634-2059
Europe	Germany	Sharp Electronics (Europe) GMBH Sonninstrasse 3, 20097 Hamburg Telephone number to access MSDS : 040-2376-2185 For more information : 040-2376-2613
	United Kingdom	Sharp Electronics (U. K.) Ltd. Telephone number for information : 01923-474013
	France	Sharp Electronics France S.A. Telephone number for information : 01-49-90-34-00
	Austria	Sharp Electronics GMBH Telephone number for information : 01-727-19-0
	Italy	Sharp Electronics (Italy) S.P.A. Telephone number for information : 02895951
	Spain	Sharp Electronics (Espana) S.A. Telephone number for information : 93-581-97-00
	Netherlands	Sharp Electronics Benelux B.V. Telephone number for information : 30-6359500
	Sweden	Sharp Electronics Nordic AB Telephone number for information : 08-634-36-00
Middle East	U.A.E.	Sharp Middle East FZE P.O.Box 17115 Jebel Ali, Dubai Telephone number for information : 04-815311

Section 3. Composition / Information for Ingredients

Ingredients	Cas No.	Proportion (% by Weight)	OSHA PEL	ACGIH TLV
Carbon Black	1333-86-4	1-6	3.5 mg/m ³ (1)	3.5 mg/m ³ (1)
Acrylic Terpolymer	(2)	0.1-2	(3)	(3)
Water Soluble Organic Solvents	(2)	10-20	(3)	(3)
Hydroxylated Alkane	(2)(4)	1-10	(3)	(3)
Acrylic Resin	(2)	0.1-5	(3)	(3)
Water	7732-18-5	>55	(3)	(3)

- Notes:**
- (1) Total dust (measured as carbon black).
 - (2) Trade secret of patented molecule.
 - (3) Specific workplace exposure limits have not been established.
 - (4) New Jersey Trade Secret Registration Number (NJTSRN) 80100451-5004.

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Section 4. Hazardous Identification

The following information is based on testing of the ink and on the characteristics of component chemicals:

Primary Routes of Entry: Ink stains on skin or mucus membranes (mouth, eyes & nose) may cause discomfort.

Medical Conditions None known at intended levels of use.

Aggravated by Exposure:

POTENTIAL HEALTH EFFECTS:

Inhalation: Short Term Exposure -- If ink mist is inhaled, respiratory tract irritation may occur.
Long Term Exposure -- No adverse chronic effects expected.

Skin Contact: Short Term Exposure -- Ink may be slightly irritating to the skin.
Long Term Exposure -- No adverse chronic effects expected. Not a dermal sensitizer.

Eye Contact: Short Term Exposure -- Not an eye irritant.
Long Term Exposure -- No adverse chronic effects expected.

Ingestion: Short Term Exposure -- Low oral toxicity.
Long Term Exposure -- No adverse chronic effects known or expected, but based on component characteristics, gastrointestinal effects, liver and kidney toxicity, and CNS effects are possible if large quantities of ink are repeatedly ingested.

Section 5 . First Aid Measures

Inhalation: Remove to fresh air. Seek medical attention if breathing becomes difficult.

Ingestion: Immediately rinse mouth out with plenty of water. If within 30 minutes after ingestion, give victim a small glass of water or milk (NEVER give anything by mouth to an unconscious person). Contact physician or poison center. Do not induce vomiting unless instructed to do so by a physician or poison center.

Skin Contact: Remove contaminated clothing. Flush affected area with water. Seek medical attention if irritation develops and persists.

Eyes Contact: Flush immediately with plenty of water. Remove contact lenses and continue flushing for at least 15 minutes. Seek medical attention if irritation develops and persists.

Section 6 . Fire Fighting Measures

Flash Point: Not applicable.

Flammability Limits (%): Not applicable.

Extinguishing Media: Water, foam, carbon dioxide or dry chemical.

Firefighting: Fire may produce small amounts of hazardous decomposition products such as carbon dioxide, carbon monoxide, and unidentified organics. NIOSH approved self-contained breathing apparatus may be required if a large volume of ink is involved.

Fire and Explosion Hazard: No unusual fire or explosion hazards are known for this product.

Hazardous Combustion Products: Oxides of carbon, organic acids, low molecular weight organics.

Section 7 . Accidental Release Measures

Occupational Spill: Absorb small ink spills with cloth or paper towels or other suitable material.

Place in a container for disposal. For large spills, dike around spill with absorbent material.

Transfer contaminated diking material to separate, suitable containers for recovery or disposal.

Ventilate area and wash spill site after material pickup is complete.

Unless specifically permitted,

keep waste out of sewers, watershed and waterways.

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Section 8. Handling and Storage

STORE IN COOL, DRY PLACE

Section 9. Exposure Control / Personal Protection

Ventilation:	Mechanical room ventilation.
Eye Protection:	None needed for intended use in printer.
Protective Clothing:	None needed for intended use in printer.
Gloves:	None needed for intended use in printer.

Section 10. Physical Chemical Characteristics

Description:	Black liquid with faint odor.
Freezing Point:	Approx. -12 to -150C
Pressurized:	No
pH:	7.0-8.5
Water Solubility:	Fully Miscible
Percent Volatile:	Approx. 18.7
Evaporation Rate (Butylacetate=1):	Approx. 3.5
Specific Gravity:	Approx. 1.0 mg/l
Vapor Density (Air=1):	Approx. 1.6

Section 11. Stability and Reactivity

Stability:	None known.
Incompatibilities:	None known.
Thermal decomposition products:	Oxides of carbon, acid gases, low molecular weight organics.
Hazardous polymerization:	This product will not polymerize.

Section 12. Toxicological Information

Acute Toxicity:	Not expected to be acutely toxic; LD50 (oral, rat) expected to be >2000 mg/kg.
Chronic Toxicity:	Not expected to be chronically toxic based on component information, volume, concentration, and intended use. Pure carbon black, a minor component of this ink, has been listed by IARC as group 2B (possible carcinogen). This classification is based on rat "lung particulate overload" studies performed with airborne particulate carbon black. Ink is not listed by IARC, NTP, or OSHA.
Carcinogenicity	OSHA Regulated(USA): Not listed In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This evaluation is given to Carbon Black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors.

Section 13. Ecological Information

No data available.

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Section 14. Disposal Consideration

This product is not a listed or hazardous waste in accordance with Federal Regulation 40 CFR Part 261. If discarded, this product would not be a hazardous waste either by listing or by characteristic. However, it is the responsibility of the product user to determine at the time of disposal whether a material has been contaminated and should be classified as a hazardous waste.

In accordance with RCRA 40 CFR Sections 264.314 and 265.314, the placement of any liquid in landfills is prohibited.

Disposal is subject to local, state and federal regulations.

Section 15. Transportation Information

DOT PROPER SHIPPING NAME: Not regulated as hazardous material.

Section 16. Regulatory Information

All ingredients are registered under the **Toxic Substances Control Act (TSCA)** or under polymer exemption.

All ingredients are exempt, registered or considered registered (polymers) under the **European Inventory of Existing Commercial Chemical Substances (EINECS/ELINCS)**.

Preparation not classified as dangerous (**EU Directives 67/548/EEC; 1999/45/EC**).

All ingredients are listed on or are considered polymers under the **Canadian Domestic Substances List (DSL) or Non Domestic Substances List (NDSL)**.

None of the product ingredients are listed as **Emergency Planning and Community Right-to-Know Act (EPCRA) - Section 302: Extremely Hazardous Substances (EHS)**.

None of the product components are present above the minimum quantities of listed chemicals in **EPCRA Section 313 Supplier Notification**.

This product contains no known materials at levels which the State of California has found to cause cancer, birth defects or other reproductive harm - **California Proposition 65**.

Section 17. Other Information

Restrictions: This information relates only to the specific material designated as supplied by the manufacturer. This information is supplied to us by the manufacturer and Sharp offers no warranties as to its accuracy and accepts no responsibilities for any typographical errors which may appear on these sheets. It is the responsibility of the user to determine the suitability of this product for each particular use.

Literature References:

IARC(1996): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds, Lyon, pp.149-261

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka, and R.Mermelstein(1991) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp.280-299.

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