

MATERIAL SAFETY DATA SHEET

SECTION 1 GENERAL INFORMATION

Product Name BLACK INK CARTRIDGE

Product Code GC-50K

This product is water-based ink in a container.
All components in ink are listed in EPA TSCA Inventory.

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SECTION 2 HAZARDOUS INGREDIENTS / HAZARD DATA

<u>INGREDIENT NAME</u>	<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>% by wt</u>
Carbon Black	1333-86-4	3.5 mg/m ³		<10
Proprietary organic materials	registered	not applicable		<10
Diethylene glycol	111-46-6	not applicable		28 ~ 35
Water	7732-18-5	not applicable		balance

SECTION 3 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (760 mmHg)	100
Vapor Pressure (mmHg at 20 °C)	Not available
Vapor Density (Air=1)	Not available
Percent Volatile by Weight	84.0%
Specific Gravity	1.1
Melting Point (°C)	<-20
Solubility In Water	miscible
Evaporation Rate (Butyl Acetate=1)	Not available
Appearance and Odor	Odorless Black Liquid

SECTION 4 FIRE & EXPLOSION HAZARD DATA

Flash Point (°C)	Not available
Explosion limits (Vol %)	LEL : Not available UEL : Not available
Extinguishing Media	Water Fog, Dry Chemical, Form or Carbon Dioxide
Special Fire Fighting Precautions	Firefighters should be equipped with self-contained breathing apparatus and turn out gear
Auto ignition Temperature (°C)	Not available
List Hazardous Decomposition Products	CO, CO ₂ , NO _x
Other Advice	Not available

SECTION 5 REACTIVITY DATA

Stability	Stable
Condition to Avoid	Avoid High-temperature and Sunshine.
Incompatibility (Materials to avoid)	Not available
Hazardous Polymerization	Will not occur.
Condition to Avoid	Not available

SECTION 6 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Ink in cartridge is black liquid with slight odor.
 Keep out of reach of children.
 Ink poses little or no immediate hazard if spilled.

POTENTIAL HEALTH EFFECTS

EYE CONTACT	Ink may cause slight irritation.
SKIN CONTACT	Prolonged exposure to ink may cause slight irritation.
INGESTION	A little amount of ink that may be swallowed during normal use is not likely to cause injury.
INHALATION	Excessive vapor caused by heating ink may cause irritation of respiratory tract.
CHRONIC EFFECTS / CARCINOGENICITY	Specific data are not available. Carbon Black is classified with 2B of IARC.

TOXICOLOGICAL INFORMATION

EYE EFFECTS	Ink is classified as a MILD IRRITANT.(rabbit)
SKIN EFFECTS	Ink is classified as a NON IRRITANT.(rabbit)
ACUTE ORAL EFFECTS	LD ₅₀ of ink is greater than 2500 mg/kg.(rat)

SECTION 7 FIRST AID MEASURES

EYE CONTACT	Flush eyes with generous amount of water for at least 15 minutes.
SKIN CONTACT	Wash affected areas with water while removing contaminated clothing.
INGESTION	Give water, and make person vomiting.
INHALATION	Remove to fresh air area.

SECTION 8 ENVIRONMENTAL DATA

Environmental Toxicity Data	Not available
Special Precautions to Be Taken in Handling and Storage	Avoid high temperature.
Other Precautions	None
Steps to be taken in Case Material is Released or Spilled	Spills should be contained, solidified, and be placed in suitable containers for disposal in accordance with local regulation.
Waste Disposal Method	Do not discharge into waterways or sewer systems without proper authority.
Container Disposal	Empty containers must be disposed in accordance with local regulation.

SECTION 9 HANDLING AND STORAGE

HANDLING	Avoid skin contact with ink. Prevent eye contact with ink.
STORAGE	Store in a cool, dark, and dry place.

SECTION 10 SPECIAL PROTECTION INFORMATION

Respirator Protection	NIOSH/MSHA-approved organic vapor respirator when vapors are generated beyond the permissible limit.
Skin and eye Protection	Wear chemical goggles, gloves, coveralls, apron, and boots.
Work/Hygienic Practices	Shower after handling this product. Clean clothing should be worn daily.

The information relates only to this specific ink cartridge. It may not be valid for this ink cartridge if used in combination with any other material or in any other process. And it is based on our best knowledge as of the date of preparation.

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All materials may present unknown hazards and should be used in existent hazards.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.