Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product name: BLACK INK CARTRIDGE/10B, Text Black Ink

Product code: 3949914 - Text Black Ink

Synonyms: None.

Relevant identified uses of the substance or mixture and uses advised against:
Identified uses: ink or inkjet chemical. For industrial use only.

Supplier: EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York 14650

For Emergency Health, Safety & Environmental Information, call (585) 722-5151 (USA)

For further information about this product, call (800) 242-2424.

2. Hazards identification

Classification of the chemical in accordance with paragraph (d) of 29 CFR 1910.1200:

Hazard class	Hazard category	Route of exposure
	Not a dangerous substance according to GHS.	--

GHS-Labelling

Contains:
Components either non-hazardous or below regulatory thresholds (proprietary)

Hazard statements: This material is not classified as hazardous according to the Hazard Communication Standard (HCS 2012).

Precautionary statements:

Prevention: Keep container tightly closed. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response: Call a POISON CENTER or doctor/ physician if you feel unwell.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

HMIS III Hazard Ratings: Health - 1*, Flammability - 1, Physical Hazard - 0

NFPA Hazard Ratings: Health - 1, Flammability - 1, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight percent	Components - (CAS-No.)
10 - 20	Diethylene glycol (111-46-6)
1 - 10	Glycerol (56-81-5)
1 - < 5	Carbon black (1333-86-4)
0.1 - < 1	Ethylene glycol (107-21-1)
0.1 - < 1	1-Methoxy-2-propanol (107-98-2)

The data in this MSDS refer to the small amount (gram quantities) of ink which is absorbed on a felt pad and contained in a plastic cartridge.

Approximately 80% of the ink is water.

4. First aid measures

Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Eyes: Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. If easy to do, remove contact lens, if worn.

Skin: Wash off with soap and water. Get medical attention if symptoms occur.

Ingestion: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

Most important symptoms and effects, both acute and delayed: No information available.

Indication of any immediate medical attention and special treatment needed:

Treatment: No information available.

5. Firefighting measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture
Hazardous Combustion Products: Carbon oxides

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Methods and materials for containment and cleaning up: Absorb spill with vermiculite or other inert material. Collect up and put in a suitable container. Damp cleaning methods should be used. Dry or wet electrostatic microfiber cleaning cloths may also be effective.

Environmental precautions: No information available.

7. Handling and storage

Precautions for safe handling

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Prevention of Fire and Explosion: The physical-chemical properties of this material have not been fully investigated. Use only with adequate ventilation. Keep from contact with oxidizing materials.

Conditions for safe storage, including any incompatibilities: Keep out of the reach of children. Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value

Glycerol	OSHA	time weighted average	5 mg/m3
			Form of exposure: mist, respirable fraction
Glycerol		time weighted average	15 mg/m3
			Form of exposure: mist, total particulate
Carbon black	ACGIH	time weighted average	3 mg/m3
			Form of exposure: inhalable fraction
	OSHA	time weighted average	3.5 mg/m3

Appropriate engineering controls: Good general ventilation should be used. Ventilation should be sufficient so that applicable occupational exposure limits are not exceeded. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances.

Individual protection measures, such as personal protective equipment

Eye protection: None should be needed under normal conditions of use.

Hand protection: None should be needed.

Respiratory protection: None should be needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: organic vapour/P95. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

9. Physical and chemical properties

Physical form: liquid (Aqueous solution)

Colour: black

Odour: No data available

Specific gravity: No data available

Vapour pressure: No data available

Vapour density: No data available

Boiling point/boiling range: No data available

Water solubility: soluble

pH: No data available

Flash point: > 93.33 °C (> 200.0 °F) (estimated)

Evaporation rate: No data available

Flammability (Solid; gas): No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: No data available

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: None under normal conditions of use.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Diethylene glycol. Can cause kidney damage and CNS effects following ingestion. Repeated oral exposure to high doses can cause liver damage.

Contains: Carbon black. In 1996 the International Agency for Research on Cancer (IARC)

reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen), based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black. The effects were observed only in animals exposed to high concentrations of 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. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats. Epidemiology studies of workers in the carbon black producing industries of North America and Western Europe do not demonstrate an association between carbon black and cancer, even in high exposure occupational settings. In addition, in its reevaluation of carbon black, IARC concluded that "there is inadequate evidence in humans for the carcinogenicity of carbon black." Chronic overexposure to many dusts, including carbon black dust, may result in respiratory tract irritation and slight changes in lung function. Collectively, the available animal data and human epidemiology studies suggest that carbon black, as contained in this product, does not present a cancer risk to the end user if the handling and personal protective measures contained within this Material Safety Data Sheet are understood and followed.

Contains: Ethylene glycol. Harmful or fatal if swallowed. Can cause kidney damage and CNS effects following ingestion. May cause adverse reproductive effects following ingestion based on animal data.

Contains: 1-Methoxy-2-propanol. Can cause CNS effects. Signs and symptoms of overexposure may include headache, nausea, dizziness, drowsiness, and central nervous system depression.

Inhalation: Expected to be a low hazard for recommended handling.

Eyes: No specific hazard known. May cause transient irritation.

Skin: Expected to be a low hazard for recommended handling.

Ingestion: Expected to be a low hazard for recommended handling. Harmful if swallowed in large quantities.

Data for Diethylene glycol (CAS 111-46-6):

Acute Toxicity Data:
Oral LD50 (rat): 12,565 mg/kg

- Inhalation LC50 (rat): > 5.08 mg/l / 4 hr
- Dermal LD50 (rabbit): 11,890 mg/kg
- Skin irritation: slight to moderate
- Eye irritation: mild

Mutagenicity/Genotoxicity Data:

- Ames test: negative (in presence and absence of activation)

Data for Glycerol (CAS 56-81-5):

Acute Toxicity Data:
Oral LD50 (rat): 17,000 - 27,200 mg/kg

- Oral LD50 (rat): 12.600 mg/kg
- Inhalation LC50 (rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (rabbit): > 10 g/kg
- Skin irritation: slight
- Skin irritation: Mild skin irritation
- Eye irritation: very slight
- Eye irritation: Mild eye irritation

Data for Carbon black (CAS 1333-86-4):

Acute Toxicity Data:
Oral LD50 (rat): > 5,000 mg/kg

- Dermal LD50 (rabbit): > 3,000 mg/kg
- Skin irritation: slight
- Skin Sensitization (guinea pig): Did not cause sensitisation on laboratory animals.
- Eye irritation: none

Mutagenicity/Genotoxicity Data:

- Salmonella typhimurium assay (Ames test) (TA98, TA100, TA1535, TA1537, TA1538): negative (in presence and absence of activation)
- Mouse lymphoma assay: negative (in presence of activation)

Data for 1-Methoxy-2-propanol (CAS 107-98-2):

Acute Toxicity Data:
Oral LD50 (rat): 5,200 mg/kg

- Inhalation LC50 (rat): 54.6 mg/l / 4 hr
- Dermal LD50 (rabbit): 13 g/kg
- Skin irritation: none
- Eye irritation: slight

Definitions for the following section(s): LOEL =lowest-observed-effect level, LOAEL = lowest-observed-adverse-effect, NOAEL = no observed-adverse-effect level, NOEL =no-observed-effect level.

Developmental Toxicity Data:

- Inhalation (female rat): NOAEL for developmental toxicity; 3,000ppm

Reproductive Toxicity Data:

- Inhalation (male and female rat): NOEL for reproductive toxicity; 1,000 ppm
- Inhalation (male and female rat): LOEL for reproductive toxicity; 3,000 ppm

Carcinogenicity:

- Inhalation (male and female rat, 2 years): NOEL; 3,000 ppm

Data for Ethylene glycol (CAS 107-21-1):

Acute Toxicity Data:

Oral LD50 (mouse): 14,600 mg/kg

- Oral LD50 (rat): 4,000 mg/kg
- Oral LDLo (Humans): 1,600 mg/kg
- Inhalation (rat): 2.5 mg/l / 6 hr
- Dermal LD50 (rabbit): 10,626 mg/kg
- Dermal LD50 (mouse): 3,500 mg/kg
- Skin irritation: No skin irritation
- Skin Sensitization (human): none
- Eye irritation: No eye irritation

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50):	> 100 mg/l
Toxicity to daphnia (EC50):	> 100 mg/l

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No information available.

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied. For information on how to recycle used cartridges, please visit www.kodak.com/go/recycle.

14. Transport information

Not regulated for all modes of transportation.

For more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	Not all listed
DSL	Not all listed
NDSL	None listed
EINECS	Not all listed
ELINCS	Listed
NLP	None listed
AICS	Not all listed
IECS	Not all listed
ENCS	Not all listed
ECI	Not all listed
NZIoC	Not all listed
PICCS	Not all listed
TSCA 12(b)	Listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Other regulations

American Conference of Governmental Industrial Hygienists (ACGIH):	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans: Carbon black
International Agency for Research on Cancer (IARC):	Group 2B - Possibly Carcinogenic to Humans: Carbon black
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

U.S. Occupational Safety and Health Administration (OSHA):	OSHA Carcinogen or Potential Carcinogen: Carbon black
California Prop. 65	WARNING! This product contains a chemical known to the State of California to cause cancer.
U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	No components of this product are subject to the SARA Section 302 (40 CFR 302.4) reporting requirements.
U.S. - CERCLA/SARA - Section 302 (40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities):	No components of this product are subject to the SARA Section 302 (40 CFR 355) reporting requirements.
U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	No components of this product are subject to the SARA Section 313 (40 CFR 372.65) reporting requirements.
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	Carbon black
U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens:	No components found on the California Specifically Regulated Carcinogens List.
U.S. - California - 8 CCR Section 5203 Carcinogens:	No components found on the California Section 5203 Carcinogens List.
U.S. - California - 8 CCR Section 5209 Carcinogens:	No components found on the California Section 5209 Carcinogens List.
U.S. - Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous Substances Disclosure by Employers (a.k.a. Right to Know Law):	Glycerol , Carbon black
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Diethylene glycol , Glycerol , Carbon black
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Glycerol , Carbon black
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Water , Diethylene glycol , Glycerol , Carbon black , Ethylene glycol

16. Other information

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-1, S-1, F-1, C-0