

Safety Data Sheet

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

Product name: KODAK Ink Combo Pack / 10B + 10C, Protective Ink

Product code: 3949948 - Protective Ink

Synonyms: None.

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: ink or inkjet chemical

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
Reproductive toxicity	Category 2	--
Specific target organ toxicity - single exposure	Category 1	--

GHS-Labeling

Contains:

Glycerol (56-81-5), Ethylene glycol (107-21-1)

Symbol(s):



Signal word: Danger

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Hazard statements: Suspected of damaging fertility or the unborn child. Causes damage to organs if swallowed. (Kidney, Central nervous system.)

Precautionary statements:

Prevention: Use personal protective equipment as required. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.

Response: IF exposed: Call a POISON CENTER or doctor/ physician.

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

Disposal: Dispose of contents/container in accordance with local 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 - 15	Glycerol (56-81-5)
1 - < 10	Ethylene glycol (107-21-1)

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. If easy to do, remove contact lens, if worn. Get medical attention if symptoms occur.

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

Ingestion: Get medical attention if symptoms occur.

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

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Indication of any immediate medical attention and special treatment needed:

Treatment: Due to rapid absorption of material, evacuation of the stomach is effective only if performed immediately after ingestion. Whenever possible, stomach evacuation should be accomplished by gastric lavage with appropriate airway control to prevent aspiration.

5. Firefighting measures

Extinguishing Media: Water spray, Carbon dioxide (CO₂), Dry chemical, Foam.

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, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. 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: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. 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. 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.)

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8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Glycerol	OSHA	time weighted average	5 mg/m3 <i>Form of exposure: mist, respirable fraction</i>
Glycerol		time weighted average	15 mg/m3 <i>Form of exposure: mist, total particulate</i>
Ethylene glycol	ACGIH	Ceiling Limit Value	100 mg/m3 <i>Form of exposure: aerosol only</i>

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: Wear safety glasses with side shields (or goggles).

Hand protection: For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

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: air-supplied respirator. 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

Colour: No data available

Odour: No data available

Specific gravity: No data available

Vapour pressure: No data available

Vapour density: No data available

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Boiling point/boiling range: > 35 °C (> 95.0 °F) (estimated)

Water solubility: No data available

pH: No data available

Flash point: > 93.3 °C (> 199.9 °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

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Effects of Exposure

General advice:

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.

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: Causes damage to organs if swallowed.

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

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

Acute Toxicity Data:

Oral LDLo (Humans): 1,600 mg/kg

- Oral LD50 (rat): 4,000 - 10,200 mg/kg
- Inhalation LC50 (rat): 100 mg/l / 2 hr
- Dermal LD50 (mouse): 3,500 mg/kg
- Dermal LD50 (rat): 10,600 mg/kg
- Skin Sensitization (human): none
- Eye irritation: No eye irritation

Carcinogenicity

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present

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	at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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 (LC50): > 100 mg/l

Persistence and degradability: Not 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.

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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	Listed
EINECS	Not all listed
ELINCS	None 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

U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):

Ethylene glycol

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.

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U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	Ethylene glycol
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	Ethylene glycol
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 , Ethylene glycol
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Glycerol , Ethylene glycol
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Glycerol , Ethylene glycol
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Water , Glycerol , Ethylene glycol , Tetrahydrofuran

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