according to Regulation (EC) No. 1907/2006

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

1.1. Product identifier: KODAK Ink Combo Pack / 10B + 10C, Cyan Ink

Product code: 3949948 - Cyan Ink

Synonyms: None.

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

**1.2.1. Identified uses:** ink or inkjet chemical

**1.3. Details of the supplier of the safety data sheet:** KODAK LIMITED, Building 8, Croxley Green Business Park, Hatters Lane, Watford, WD18 8PX, Great Britain

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

## **1.4. Emergency telephone number:**

Available during office hours only. IN EMERGENCY, telephone: 844 892 0111.

#### 2. Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 (CLP):			
Hazard class / Hazard category	Hazard	Route of exposure	
Eye Irrit. 2	H319		
Repr. 2	H361		

# 2.2. Label elements:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

# Labelling according to 1272/2008/EC [CLP/GHS]:

Contains: glycerol, 2-methoxypropanol, Ethoxylated tetramethyldecynediol

Symbol(s):

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Signal word: Warning

## Hazard statements:

Causes serious eye irritation. Suspected of damaging fertility or the unborn child.

Contains: Isothiazolin derivative. May produce an allergic reaction.

## **Precautionary statements:**

#### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash hands thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

# Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention. IF exposed or concerned: Get medical advice/ attention.

#### Storage

Store locked up.

#### Disposal

Dispose of contents/container in accordance with local regulation.

# 2.3. Other hazards

None known.

#### 3. Composition/information on ingredients

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Weight percent	Component	CAS-No. EC No. REACH Reg. No.	Classification according to 1272/2008/EC	Classification according to 67/548/EEC
5 - 10	glycerol	56-81-5 200-289-5 not available	**	**
1 - < 10	ethanediol	107-21-1 203-473-3 01-2119456816-28- XXXX	Acute Tox. 4 H302 *	*
1 - 5	29H,31H-phtha	alocyaninato(2-)-N29,1 147-14-8 205-685-1 not available	N30,N31,N32 copper	**
0.1 - < 1	2-methoxyprop	banol 1589-47-5 216-455-5 not available	Flam. Liq. 3 H226 Skin Irrit. 2 H315 Eye Dam. 1 H318 Repr. 1B H360D STOT SE 3 H335 *	*
0.1 - < 1	Ethoxylated te	tramethyldecynediol 9014-85-1 not available not available	Eye Dam. 1 H318 **	**
0.01 - < 0.05	Isothiazolin de	rivative proprietary proprietary not available	Skin Corr. 1B H314 Eye Dam. 1 Skin Sens. 1 H317 STOT SE 3 H335 Aquatic Acute 1 H400 **	**

Full text of R- and H-phrases: see Section 16.

\* Substance classification as listed in Annex VI to Regulation (EC) No 1272/2008

\*\* Substance not listed in Annex VI to Regulation (EC) No 1272/2008

#### 4. First aid measures

## 4.1. Description of first aid measures

**4.1.1.** Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

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**4.1.2. Skin:** Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

**4.1.3. Eyes:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If easy to do, remove contact lens, if worn. If eye irritation persists: Get medical advice/ attention.

**4.1.4. Ingestion:** If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

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

**4.3. Indication of any immediate medical attention and special treatment needed:** No information available.

# 5. Firefighting measures

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

# 5.2. Special hazards arising from the substance or mixture

5.2.1. Hazardous Combustion Products: Carbon oxides

#### 5.2.2. Unusual Fire and Explosion Hazards: None.

**5.3.** Advice for firefighters: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

# 6. Accidental release measures

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

6.2. Environmental precautions: Prevent runoff from entering drains, sewers, or streams.

**6.3. 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.

**6.4. Reference to other sections:** See Section 8 for recommendations on the use of personal protective equipment.

#### 7. Handling and storage

according to Regulation (EC) No. 1907/2006

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# 7.1. Precautions for safe handling

**7.1.1. Personal precautions:** Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

7.1.2. Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

**7.1.3. Ventilation:** Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

**7.2. Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep away from incompatible substances (see Incompatibility section.)

# 7.3. Specific end use(s): No information available.

#### 8. Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.1.1. Occupational exposure controls

Chemical name	Regulatory List	Value Type	Value
glycerol	EH40	Time weighted average	10 mg/m3
			Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
		<del>_</del>	Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
		<del>_</del>	Form of exposure: particulates
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	30 mg/m3
			Form of exposure: particulate
			Remarks: calculated
		Short term exposure limit	40 ppm 104 mg/m3
			Form of exposure: vapour
altreamel		Time weighted every	Potential for cutaneous absorption
glycerol	HSA	Time weighted average	10 mg/m3
		Chart term eveneure limit	Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
a tha a sa a di a l		Time weighted everage	Remarks: calculated
ethanediol		Time weighted average	10 mg/m3

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Time weighted averageForm of exposure: particulateTime weighted average20 ppm 52 mg/m3Short term exposure limitForm of exposure: vapourShort term exposure limit104 mg/m3Form of exposure: vapour40 ppmForm of exposure: particulatePotential for cutaneous absorption

#### 8.2. Exposure controls

**8.2.1.** Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

#### 8.2.2. Individual protection measures, such as personal protective equipment

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

**Hand protection:** Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min
Neoprene	>= 0.65 mm	> 240 min
butyl-rubber	>= 0.36 mm	> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

**General health and safety measures:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

**8.2.3. Environmental exposure controls:** No information available.

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### 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid

**Colour:** blue cyan

Odour: No data available

#### Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

**Initial boiling point and boiling range:** > 35 °C (> 95.0 °F) (estimated)

**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

Vapour pressure: No data available

Vapour density: No data available

Specific gravity: No data available

Water solubility: 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

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## Explosive properties: No data available

Oxidizing properties: No data available

# 10. Stability and reactivity

- **10.1. Reactivity:** No data available
- 10.2. Chemical stability: Stable under normal conditions.
- 10.3. Possibility of hazardous reactions: Hazardous polymerisation does not occur.
- 10.4. Conditions to avoid: No data available
- **10.5.** Incompatible materials: Strong oxidizing agents.

## 10.6. Hazardous decomposition products: Carbon oxides

#### **11. Toxicological information**

#### **Effects of Exposure**

# Toxicokinetics, metabolism and distribution

No data available

#### Acute toxicity

No data available

#### **Corrositivity and irritation**

- Skin irritation: Mild skin irritation
- Eye irritation (Irritating to eyes.):

#### Sensitisation

No data available

## CMR effects Germ cell mutagenicity

No information available.

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## Carcinogenicity

No information available.

## **Reproductive toxicity**

Suspected of damaging fertility. Suspected of damaging the unborn child. **Specific target organ toxicity - single exposure** 

No information available.

## Specific target organ toxicity - repeated exposure

• Ingestion (Kidney): May cause damage to organs through prolonged or repeated exposure.

## **Aspiration hazard**

No information available.

#### Information on likely routes of exposure

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

Eyes: Causes serious eye irritation.

Skin: Causes mild skin irritation.

**Ingestion:** May cause damage to organs through prolonged or repeated exposure if swallowed. May cause irritation of the gastrointestinal tract if swallowed.

# Data for glycerol (CAS 56-81-5):

# Acute Toxicity Data:

Oral LD50 (Rat): 12,600 mg/kg

- Inhalation LC50 (Rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (Rabbit): > 10 g/kg
- Skin irritation: slight
- Eye irritation: very slight

# Data for ethanediol (CAS 107-21-1):

#### Acute Toxicity Data:

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

• Oral LD50 (Rat): 4,700 mg/kg

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- Inhalation (Rat): 2.5 mg/l / 6 hr
- Dermal LD50 (Rabbit): 10,607 mg/kg
- Dermal LD50 (Rat): 10,600 mg/kg
- Skin irritation: Mild skin irritation
- Eye irritation: none
- Sensitisation (human): none
- Sensitisation (Guinea pig): none

# Data for 29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper (CAS 147-14-8) (Hostaperm blue B2G):

# Acute Toxicity Data:

Oral LD50 (Rat): > 3,200 mg/kg

- Oral LD50 (male and female Rat): > 12,800 mg/kg No information available.
- Oral LD50 (male and female Mouse): > 24,600 mg/kg No information available.
- Oral LD50 (Rat): > 10,000 mg/kg
- Dermal LD50 (Guinea pig): > 5.000 No information available.
- Skin irritation: slight
- Sensitisation (Guinea pig): negative

# Data for 2-methoxypropanol (CAS 1589-47-5):

# Acute Toxicity Data:

- Skin irritation: irritating
- Eye irritation: severe

# Data for Ethoxylated tetramethyldecynediol (CAS 9014-85-1):

# Acute Toxicity Data:

Oral LD50 (Rat): 6,300 mg/kg No information available.

- Inhalation LC50 (Rat): > 20 mg/l / 1 hr
- Dermal LD50 (Rabbit): > 2,000 mg/kg (Highest dose tested no evidence of absorption at this dose level.) see user defined free text
- Skin irritation: Mild skin irritation
- Eye irritation: severe

# **Reproductive Toxicity Data:**

Feeding Study (male and female Rat): NOEL for reproductive toxicity; 1,000 mg/kg/day

# Repeated dose toxicity:

Feeding study (28-day, Rat): NOEL; 6000 ppm

- Oral (90 days, Dog): NOEL; 200 mg/kg/day
- Oral (90 days, Dog): NOEL; 400 mg/kg/day (minor target organ effects: liver)

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## Data for Isothiazolin derivative:

#### Acute Toxicity Data:

• Sensitisation: positive

## **12. Ecological information**

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

This product has not been tested for environmental effects.

## 12.1. Toxicity

Toxicity to fish (LC50):	10 - 100 mg/l estimated
Toxicity to daphnia (LC50):	10 - 100 mg/l estimated

# 12.2. Persistence and degradability

Persistence and degradability:	Readily biodegradable

# 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

No information available.

#### 12.5. Results of PBT and vPvB assessment

No information available.

#### 12.6. Other adverse effects

No information available.

# 13. Disposal considerations

#### 13.1. Waste treatment methods

Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

Waste material: European Waste Catalogue EWC: 08 03 13 Waste ink other than those mentioned in 08 03 12

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**Product containers:** If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. The European Waste Catalogue Code is 15 01 02 plastic packaging.

The product does not need to be labelled in accordance with EC directives or respective national laws. Dispose of contents/container in accordance with local regulation.

#### 14. Transport information

Not regulated for all modes of transportation.

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

#### 15. Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 1907/2006/EC Article 59(1) - Candidate List of Substances Subject to Authorisation

This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

#### 1907/2006/EC - Annex XIV - Substances Subject to Authorization

This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

#### 1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

#### 1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture contains ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH): 2-methoxypropanol (216-455-5)

#### Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

#### **Notification status**

Regulatory List	Notification status
TSCA	Not all listed

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DSL	Not all listed
NDSL	Listed
EINECS	Not all listed
ELINCS	None listed
NLP	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
TCSI	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.

### 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

#### 16. Other information

#### 16.1. Indication of changes

Corrected/updated:

Multiple changes due to format update

Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

#### 16.2. Key or legend to abbreviations and acronyms used in the safety data sheet

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS = Australian Inventory of Chemical Substances; CAS = Chemical Abstracts Service; CLP = Classification, Labelling, and Packaging; DSL = Canada Domestic Substances List; EC = European Commission; EC50 = Effective Concentration 50%; ECI = Korea Existing Chemicals list; EH40 = EH40/2005 Workplace Exposure Limits; EINECS = European Inventory of Existing Commercial chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; HSA = Code of Practice for

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the Safety, Health and Welfare at Work (Chemical Agents); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Inhibitory Concentration 50%; IECS = China Inventory of Existing Chemical Substances; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NDSL = Canada Non-Domestic Substances List; NLP = Europe No Longer Polymers; NZIoC = New Zealand Inventory of Chemicals; PBT = Persistent, Bioaccumulative and Toxic substances; PICCS = Philippines Inventory of Chemicals and Chemical Substances; ppm = parts per million; REACH= Registration, Evaluation and Authorization of Chemicals; RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail; TSCA = Toxic Substances Control Act; vPvB = very Persistent, very Bioaccumulative substances

# 16.3. Key literature references and sources for data

Available upon request.

# 16.4. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

#### 16.5. Relevant R- and H-phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.

# 16.6. Training advice

Review Safety Data Sheet before using product.

# **16.7.** Further information

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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.

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

**1.1. Product identifier:** KODAK Ink Combo Pack / 10B + 10C, Magenta Ink

Product code: 3949948 - Magenta Ink

Synonyms: None.

**1.2.** Relevant identified uses of the substance or mixture and uses advised against: **1.2.1.** Identified uses: ink or inkjet chemical. For industrial use only.

**1.3. Details of the supplier of the safety data sheet:** KODAK LIMITED, Building 8, Croxley Green Business Park, Hatters Lane, Watford, WD18 8PX, Great Britain

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

#### **1.4. Emergency telephone number:**

Available during office hours only. IN EMERGENCY, telephone: 844 892 0111.

#### 2. Hazards identification

## 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 (CLP):

Not hazardous according to GHS/Hazard Communication regulations.

#### 2.2. Label elements:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

# Labelling according to 1272/2008/EC [CLP/GHS]:

Contains: Components either non-hazardous or below regulatory thresholds

#### Hazard statements:

Not hazardous according to GHS/Hazard Communication regulations.

according to Regulation (EC) No. 1907/2006

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# Labelling according to 67/548/EEC or 1999/45/EC:

\*Safety data sheet available for professional user on request.

#### 2.3. Other hazards

None known.

#### 3. Composition/information on ingredients

Weight percent	Component	CAS-No. EC No. REACH Reg. No.	Classification according to 1272/2008/EC	Classification according to 67/548/EEC
5 - 10	glycerol	56-81-5 200-289-5 not available	**	**
1 - < 10	ethanediol	107-21-1 203-473-3 01-2119456816-28- XXXX	Acute Tox. 4 H302 *	*
0.1 - < 1	1-methoxy-2-p	ropanol 107-98-2 203-539-1 01-2119457435-35- XXXX	Flam. Liq. 3 H226 STOT SE 3 H336 *	*

Full text of R- and H-phrases: see Section 16.

\* Substance classification as listed in Annex VI to Regulation (EC) No 1272/2008

\*\* Substance not listed in Annex VI to Regulation (EC) No 1272/2008

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

#### 4.1. Description of first aid measures

4.1.1. Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

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**4.1.2. Skin:** Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.

**4.1.3. 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 persist.

**4.1.4. Ingestion:** If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur.

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

**4.3. Indication of any immediate medical attention and special treatment needed:** 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

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

5.2. Special hazards arising from the substance or mixture

5.2.1. Hazardous Combustion Products: Carbon oxides

5.2.2. Unusual Fire and Explosion Hazards: None.

**5.3.** Advice for firefighters: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

#### 6. Accidental release measures

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

6.2. Environmental precautions: Prevent runoff from entering drains, sewers, or streams.

**6.3. 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.

**6.4. Reference to other sections:** See Section 8 for recommendations on the use of personal protective equipment.

#### 7. Handling and storage

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# 7.1. Precautions for safe handling

**7.1.1. Personal precautions:** No special precautionary measures should be needed under anticipated conditions of use. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

7.1.2. Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

**7.1.3. Ventilation:** Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

**7.2. Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep away from incompatible substances (see Incompatibility section.)

7.3. Specific end use(s): No information available.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure controls

Chemical name	Regulatory List	Value Type	Value
glycerol	EH40	Time weighted average	10 mg/m3
			Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
		<del>_</del>	Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
		<del>_</del>	Form of exposure: particulates
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	30 mg/m3
			Form of exposure: particulate
			Remarks: calculated
		Short term exposure limit	40 ppm 104 mg/m3
			Form of exposure: vapour
aluaanal		Time weighted every	Potential for cutaneous absorption
glycerol	HSA	Time weighted average	10 mg/m3
		Chart to un over over limit	Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
a tha an a sha t		Time weighted every	Remarks: calculated
ethanediol		Time weighted average	10 mg/m3

according to Regulation (EC) No. 1907/2006

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Time weighted averageForm of exposure: particulateTime weighted average20 ppm 52 mg/m3Short term exposure limitForm of exposure: vapourShort term exposure limit104 mg/m3Form of exposure: vapour40 ppmForm of exposure: particulatePotential for cutaneous absorption

#### 8.2. Exposure controls

**8.2.1.** Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

#### 8.2.2. Individual protection measures, such as personal protective equipment

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

**Hand protection:** Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min
Neoprene	>= 0.65 mm	> 240 min
butyl-rubber	>= 0.36 mm	> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

**General health and safety measures:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

8.2.3. Environmental exposure controls: No information available.

according to Regulation (EC) No. 1907/2006

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### 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid

Colour: magenta red

Odour: No data available

#### Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

**Initial boiling point and boiling range:** > 35 °C (> 95.0 °F) (estimated)

**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

Vapour pressure: No data available

Vapour density: No data available

Specific gravity: No data available

Water solubility: 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

according to Regulation (EC) No. 1907/2006

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## Explosive properties: No data available

Oxidizing properties: No data available

# 10. Stability and reactivity

- 10.1. Reactivity: No data available
- 10.2. Chemical stability: Stable under normal conditions.
- **10.3.** Possibility of hazardous reactions: Hazardous polymerisation does not occur.
- 10.4. Conditions to avoid: No data available
- **10.5.** Incompatible materials: Strong oxidizing agents.
- 10.6. Hazardous decomposition products: Carbon oxides

### **11. Toxicological information**

**Effects of Exposure** 

# Toxicokinetics, metabolism and distribution

No data available

#### Acute toxicity

No data available

#### **Corrositivity and irritation**

No data available

## Sensitisation

No data available

#### CMR effects Germ cell mutagenicity

No information available.

# Carcinogenicity

according to Regulation (EC) No. 1907/2006

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No information available.

## **Reproductive toxicity**

No information available.

# Specific target organ toxicity - single exposure

No information available.

# Specific target organ toxicity - repeated exposure

No information available.

## **Aspiration hazard**

No information available.

## Information on likely routes of exposure

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

Eyes: May cause transient irritation.

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

**Ingestion:** Expected to be a low ingestion hazard.

# Data for glycerol (CAS 56-81-5):

# Acute Toxicity Data:

Oral LD50 (Rat): 12,600 mg/kg

- Inhalation LC50 (Rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (Rabbit): > 10 g/kg
- Skin irritation: slight
- Eye irritation: very slight

# Data for ethanediol (CAS 107-21-1):

## Acute Toxicity Data:

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

- Oral LD50 (Rat): 4,700 mg/kg
- Inhalation (Rat): 2.5 mg/l / 6 hr
- Dermal LD50 (Rabbit): 10,607 mg/kg

according to Regulation (EC) No. 1907/2006

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- Dermal LD50 (Rat): 10,600 mg/kg
- Skin irritation: Mild skin irritation
- Eye irritation: none
- Sensitisation (human): none
- Sensitisation (Guinea pig): none

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

## Acute Toxicity Data:

Oral LD50 (Rat): 2,973 - 7,986 mg/kg

- Inhalation LC50 (Rat): > 10000 ppm / 4 hr
- Inhalation LC50 (Rat): >7559 ppm / 6 hr
- Dermal LD50 (Rabbit): 13,000 mg/kg
- Skin irritation: none
- Eye irritation: slight

#### Carcinogenicity:

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

### **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

#### **Developmental Toxicity Data:**

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

#### 12. Ecological information

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

This product has not been tested for environmental effects.

# 12.1. Toxicity

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

# 12.2. Persistence and degradability

Persistence and degradability:	Readily biodegradable
--------------------------------	-----------------------

#### 12.3. Bioaccumulative potential

according to Regulation (EC) No. 1907/2006

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No data available

## 12.4. Mobility in soil

No information available.

## 12.5. Results of PBT and vPvB assessment

No information available.

## 12.6. Other adverse effects

No information available.

## 13. Disposal considerations

## 13.1. Waste treatment methods

Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

**Waste material:** European Waste Catalogue EWC: 08 03 13 Waste ink other than those mentioned in 08 03 12

**Product containers:** If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. The European Waste Catalogue Code is 15 01 06 mixed packaging.

The product does not need to be labelled in accordance with EC directives or respective national laws. Dispose of contents/container in accordance with local regulation.

#### 14. Transport information

Not regulated for all modes of transportation.

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

# 15. Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

# 1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

according to Regulation (EC) No. 1907/2006

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## 1907/2006/EC Article 59(1) - Candidate List of Substances Subject to Authorisation

This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

#### 1907/2006/EC - Annex XIV - Substances Subject to Authorization

This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

#### 1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture contains ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH): 2-methoxypropanol (216-455-5)

# Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

#### **Notification status**

Regulatory List	Notification status
TSCA	Not all listed
DSL	Not all listed
NDSL	Listed
EINECS	Not all listed
ELINCS	None listed
NLP	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
TCSI	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.

according to Regulation (EC) No. 1907/2006

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## 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

### 16. Other information

#### 16.1. Indication of changes

Corrected/updated:

Multiple changes due to format update Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

#### 16.2. Key or legend to abbreviations and acronyms used in the safety data sheet

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS = Australian Inventory of Chemical Substances; CAS = Chemical Abstracts Service: CLP = Classification, Labelling, and Packaging: DSL = Canada Domestic Substances List; EC = European Commission; EC50 = Effective Concentration 50%; ECI = Korea Existing Chemicals list; EH40 = EH40/2005 Workplace Exposure Limits; EINECS = European Inventory of Existing Commercial chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; GHS = Globally Harmonized System of Classification and Labelling of Chemicals: HSA = Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Inhibitory Concentration 50%; IECS = China Inventory of Existing Chemical Substances; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NDSL = Canada Non-Domestic Substances List; NLP = Europe No Longer Polymers; NZIoC = New Zealand Inventory of Chemicals; PBT = Persistent, Bioaccumulative and Toxic substances; PICCS = Philippines Inventory of Chemicals and Chemical Substances; ppm = parts per million; REACH= Registration, Evaluation and Authorization of Chemicals; RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail: TSCA = Toxic Substances Control Act; vPvB = very Persistent, very Bioaccumulative substances

#### 16.3. Key literature references and sources for data

Available upon request.

# 16.4. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

#### 16.5. Relevant R- and H-phrases

H226 Flammable liquid and vapour.

according to Regulation (EC) No. 1907/2006

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H302 Harmful if swallowed.H336 May cause drowsiness or dizziness.

## 16.6. Training advice

Review Safety Data Sheet before using product.

# **16.7.** Further information

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.

according to Regulation (EC) No. 1907/2006

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

1.1. Product identifier: KODAK Ink Combo Pack / 10B + 10C, Yellow Ink

Product code: 3949948 - Yellow Ink

Synonyms: None.

# **1.2.** Relevant identified uses of the substance or mixture and uses advised against:

**1.2.1. Identified uses:** ink or inkjet chemical

**1.3. Details of the supplier of the safety data sheet:** KODAK LIMITED, Building 8, Croxley Green Business Park, Hatters Lane, Watford, WD18 8PX, Great Britain

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

# 1.4. Emergency telephone number:

Available during office hours only. IN EMERGENCY, telephone: 844 892 0111.

# 2. Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 (CLP):			
Hazard class / Hazard	Hazard	Route of exposure	
category	statements		
Repr. 1B	H360		
STOT SE 1	H370	Oral	
Aquatic Chronic 3	H412		

# 2.2. Label elements:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

# Labelling according to 1272/2008/EC [CLP/GHS]:

**Contains:** glycerol , ethanediol , Ethanesulfonic acid, 2-(methyl((9Z)-1-oxo-9-octadecenyl)amino)-, potassium salt

Symbol(s):

according to Regulation (EC) No. 1907/2006

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Signal word: Danger

#### Hazard statements:

May damage fertility or the unborn child. Causes damage to organs if swallowed.

*Kidney Central nervous system* Harmful to aquatic life with long lasting effects.

## **Precautionary statements:**

#### Prevention

Obtain special instructions before use. Use personal protective equipment as required. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Avoid release to the environment.

#### Response

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

#### Disposal

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

#### 2.3. Other hazards

None known.

#### 3. Composition/information on ingredients

Weight percent	Component	CAS-No. EC No. REACH Reg. No.	Classification according to 1272/2008/EC	Classification according to 67/548/EEC
5 - 10	glycerol			
		56-81-5		**
		200-289-5	**	

according to Regulation (EC) No. 1907/2006

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		not available		
1 - 5	ethanediol			
		107-21-1	Acute Tox. 4 H302	*
		203-473-3	*	
		01-2119456816-28-		
		XXXX		
0.1 - < 1	silicon dioxide			
		7631-86-9	**	**
		231-545-4		
		not available		
0.1 - < 1	Ethanesulfonic	acid, 2-(methyl((9Z)-	1-oxo-9-octadecenyl)am	nino)-, potassium salt
		130976-49-7	Eye Dam. 1 H318	**
		not available	Aquatic Chronic 2	
		not available	H411	
			**	

Full text of R- and H-phrases: see Section 16.

\* Substance classification as listed in Annex VI to Regulation (EC) No 1272/2008

\*\* Substance not listed in Annex VI to Regulation (EC) No 1272/2008

# 4. First aid measures

#### 4.1. Description of first aid measures

**4.1.1.** Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**4.1.2. Skin:** Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.

**4.1.3. 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 persist.

**4.1.4. Ingestion:** If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

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

**4.3. Indication of any immediate medical attention and special treatment needed:** No information available.

#### 5. Firefighting measures

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

5.2. Special hazards arising from the substance or mixture

according to Regulation (EC) No. 1907/2006

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# 5.2.1. Hazardous Combustion Products: Carbon oxides

# 5.2.2. Unusual Fire and Explosion Hazards: None.

**5.3.** Advice for firefighters: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

# 6. Accidental release measures

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

6.2. Environmental precautions: Prevent runoff from entering drains, sewers, or streams.

**6.3. 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.

**6.4. Reference to other sections:** See Section 8 for recommendations on the use of personal protective equipment.

# 7. Handling and storage

# 7.1. Precautions for safe handling

**7.1.1. Personal precautions:** Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

7.1.2. Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

**7.1.3. Ventilation:** Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

**7.2. Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep away from incompatible substances (see Incompatibility section.)

# 7.3. Specific end use(s): No information available.

#### 8. Exposure controls/personal protection

#### 8.1. Control parameters

8.1.1. Occupational exposure controls

according to Regulation (EC) No. 1907/2006

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Chemical name	Regulatory List	Value Type	Value
glycerol	EH40	Time weighted average	10 mg/m3
			Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
			Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
			Form of exposure: particulates
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	30 mg/m3
			Form of exposure: particulate
			Remarks: calculated
		Short term exposure limit	40 ppm 104 mg/m3
			Form of exposure: vapour
		Time weighted everage	Potential for cutaneous absorption
glycerol	HSA	Time weighted average	10 mg/m3
		Chart term eveneure limit	Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist Remarks: calculated
ethanediol		Time weighted average	
ethaneului		Time weighted average	10 mg/m3 Form of exposure: particulate
		Time weighted average	20 ppm 52 mg/m3
		Time weighted average	Form of exposure: vapour
		Short term exposure limit	104 mg/m3
			Form of exposure: vapour
		Short term exposure limit	40 ppm
			Form of exposure: particulate
			Potential for cutaneous absorption

#### 8.2. Exposure controls

**8.2.1.** Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

#### 8.2.2. Individual protection measures, such as personal protective equipment

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

**Hand protection:** Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the

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substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min
Neoprene	>= 0.65 mm	> 240 min
butyl-rubber	>= 0.36 mm	> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

**General health and safety measures:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

#### 8.2.3. Environmental exposure controls: No information available.

#### 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid

Colour: yellow

Odour: No data available

Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

according to Regulation (EC) No. 1907/2006

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**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 Vapour pressure: No data available Vapour density: No data available Specific gravity: No data available Water solubility: soluble 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** 

**10.1. Reactivity:** No data available

**10.2. Chemical stability:** Stable under normal conditions.

**10.3.** Possibility of hazardous reactions: Hazardous polymerisation does not occur.

- 10.4. Conditions to avoid: No data available
- **10.5.** Incompatible materials: Strong oxidizing agents.
- 10.6. Hazardous decomposition products: Carbon oxides

according to Regulation (EC) No. 1907/2006

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# 11. Toxicological information

## **Effects of Exposure**

## Toxicokinetics, metabolism and distribution

No data available

## Acute toxicity

No data available

## Corrositivity and irritation

• Skin irritation: Mild skin irritation

## Sensitisation

No data available

#### CMR effects Germ cell mutagenicity

No information available.

#### Carcinogenicity

No information available.

#### **Reproductive toxicity**

Suspected of damaging fertility. Suspected of damaging the unborn child. **Specific target organ toxicity - single exposure** 

- Ingestion (Kidney): Causes damage to organs.
- Ingestion (Central nervous system): Causes damage to organs.

#### Specific target organ toxicity - repeated exposure

No information available.

#### Aspiration hazard

No information available.

#### Information on likely routes of exposure

according to Regulation (EC) No. 1907/2006

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

**Eyes:** May cause transient irritation.

Skin: Causes mild skin irritation.

**Ingestion:** Can cause kidney damage and CNS effects following ingestion.

## Data for glycerol (CAS 56-81-5):

## Acute Toxicity Data:

Oral LD50 (Rat): 12,600 mg/kg

- Inhalation LC50 (Rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (Rabbit): > 10 g/kg
- Skin irritation: slight
- Eye irritation: very slight

# Data for ethanediol (CAS 107-21-1):

# Acute Toxicity Data:

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

- Oral LD50 (Rat): 4,700 mg/kg
- Inhalation (Rat): 2.5 mg/l / 6 hr
- Dermal LD50 (Rabbit): 10,607 mg/kg
- Dermal LD50 (Rat): 10,600 mg/kg
- Skin irritation: Mild skin irritation
- Eye irritation: none
- Sensitisation (human): none
- Sensitisation (Guinea pig): none

# 12. Ecological information

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

This product has not been tested for environmental effects.

## 12.1. Toxicity

Toxicity to fish (LC50):	> 100 mg/l estimated
Toxicity to daphnia (EC50):	> 100 mg/l estimated
Toxicity to algae (EC50):	10 - 100 mg/l estimated

according to Regulation (EC) No. 1907/2006

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## 12.2. Persistence and degradability

Persistence and degradability: Not readily biodegradable.

# 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

No information available.

## 12.5. Results of PBT and vPvB assessment

No information available.

## 12.6. Other adverse effects

No information available.

## 13. Disposal considerations

## 13.1. Waste treatment methods

Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

## 14. Transport information

Not regulated for all modes of transportation.

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

## 15. Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**1907/2006/EC** Article **59(1)** - Candidate List of Substances Subject to Authorisation This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

## 1907/2006/EC - Annex XIV - Substances Subject to Authorization

according to Regulation (EC) No. 1907/2006

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This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

## 1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

## 1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture does not contain ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH)

# Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

## **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
TCSI	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.

## 15.2. Chemical safety assessment

according to Regulation (EC) No. 1907/2006

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Chemical safety assessment has not been performed.

## 16. Other information

# 16.1. Indication of changes

Corrected/updated:

Multiple changes due to format update

Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

16.2. Key or legend to abbreviations and acronyms used in the safety data sheet ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS = Australian Inventory of Chemical Substances; CAS = Chemical Abstracts Service; CLP = Classification, Labelling, and Packaging; DSL = Canada Domestic Substances List: EC = European Commission: EC50 = Effective Concentration 50%; ECI = Korea Existing Chemicals list; EH40 = EH40/2005 Workplace Exposure Limits; EINECS = European Inventory of Existing Commercial chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; HSA = Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Inhibitory Concentration 50%; IECS = China Inventory of Existing Chemical Substances; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NDSL = Canada Non-Domestic Substances List; NLP = Europe No Longer Polymers; NZIoC = New Zealand Inventory of Chemicals; PBT = Persistent, Bioaccumulative and Toxic substances; PICCS = Philippines Inventory of Chemicals and Chemical Substances; ppm = parts per million; REACH= Registration, Evaluation and Authorization of Chemicals; RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail; TSCA = Toxic Substances Control Act; vPvB = very Persistent, very Bioaccumulative substances

# 16.3. Key literature references and sources for data

Available upon request.

# 16.4. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

# 16.5. Relevant R- and H-phrases

H302 Harmful if swallowed.

H318 Causes serious eye damage.

according to Regulation (EC) No. 1907/2006

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H360	May damage fertility or the unborn child.
H370	Causes damage to organs if swallowed.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

# 16.6. Training advice

Review Safety Data Sheet before using product.

# 16.7. Further information

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.

according to Regulation (EC) No. 1907/2006

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

1.1. Product identifier: KODAK Ink Combo Pack / 10B + 10C, Photo Black Ink

Product code: 3949948 - Photo Black Ink

Synonyms: None.

# **1.2.** Relevant identified uses of the substance or mixture and uses advised against:

**1.2.1. Identified uses:** ink or inkjet chemical

**1.3. Details of the supplier of the safety data sheet:** KODAK LIMITED, Building 8, Croxley Green Business Park, Hatters Lane, Watford, WD18 8PX, Great Britain

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

## **1.4. Emergency telephone number:**

Available during office hours only. IN EMERGENCY, telephone: 844 892 0111.

## 2. Hazards identification

2.1. Classification of the substance or mixture Classification according to EU Directives 1272/2008/EC [CLP/GHS]:		
Hazard class / Hazard	Hazard	Route of exposure
category	statements	
Repr. 1B	H361	
STOT SE 1	H370	Oral

# 2.2. Label elements:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

# Labelling according to 1272/2008/EC [CLP/GHS]:

**Contains:** ethanediol , glycerol , 1-methoxy-2-propanol

Symbol(s):

according to Regulation (EC) No. 1907/2006

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Signal word: Danger

## 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.

#### Response

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

## 2.3. Other hazards

None known.

# 3. Composition/information on ingredients

Weight percent	Component	CAS-No. EC No. REACH Reg. No.	Classification according to 1272/2008/EC	Classification according to 67/548/EEC
5 - 10	glycerol	56-81-5 200-289-5 not available	**	**
1 - 5	ethanediol	107-21-1 203-473-3 01-2119456816-28- XXXX	Acute Tox. 4 H302 *	*

according to Regulation (EC) No. 1907/2006

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0.1 - < 1	1-methoxy-2-p	ropanol 107-98-2 203-539-1 01-2119457435-35- XXXX	Flam. Liq. 3 H226 STOT SE 3 H336 *	*
0.1 - 0.5	Carbon black	1333-86-4 215-609-9 not available	**	**

Full text of R- and H-phrases: see Section 16.

## \* Substance classification as listed in Annex VI to Regulation (EC) No 1272/2008 \*\* Substance not listed in Annex VI to Regulation (EC) No 1272/2008

## 4. First aid measures

## 4.1. Description of first aid measures

4.1.1. Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**4.1.2. Skin:** Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.

**4.1.3. 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 persist.

**4.1.4. Ingestion:** If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

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

# **4.3. Indication of any immediate medical attention and special treatment needed:** No information available.

# 5. Firefighting measures

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

# 5.2. Special hazards arising from the substance or mixture

## 5.2.1. Hazardous Combustion Products: Carbon oxides

## 5.2.2. Unusual Fire and Explosion Hazards: None.

**5.3.** Advice for firefighters: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

according to Regulation (EC) No. 1907/2006

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## 6. Accidental release measures

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

6.2. Environmental precautions: Prevent runoff from entering drains, sewers, or streams.

**6.3. 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.

**6.4. Reference to other sections:** See Section 8 for recommendations on the use of personal protective equipment.

## 7. Handling and storage

# 7.1. Precautions for safe handling

**7.1.1. Personal precautions:** Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

7.1.2. Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

**7.1.3. Ventilation:** Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

**7.2. Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep away from incompatible substances (see Incompatibility section.)

7.3. Specific end use(s): No information available.

## 8. Exposure controls/personal protection

# 8.1. Control parameters

## 8.1.1. Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
glycerol	EH40	Time weighted average	10 mg/m3 Form of exposure: mist
		Short term exposure limit	30 mg/m3

according to Regulation (EC) No. 1907/2006

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			Form of exposure: mist
ethanediol		Time weighted average	Remarks: calculated
ethaneului		Time weighted average	20 ppm 52 mg/m3
		Time weighted everage	Form of exposure: vapour
		Time weighted average	10 mg/m3
			Form of exposure: particulates
		Short term exposure limit	40 ppm 104 mg/m3
			Form of exposure: vapour
		Short term exposure limit	30 mg/m3
			Form of exposure: particulate
			Remarks: calculated
			Potential for cutaneous absorption
glycerol	HSA	Time weighted average	10 mg/m3
			Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
			Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
			Form of exposure: particulate
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	104 mg/m3
		·	Form of exposure: vapour
		Short term exposure limit	40 ppm
			Form of exposure: particulate
			Potential for cutaneous absorption

## 8.2. Exposure controls

**8.2.1.** Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

## 8.2.2. Individual protection measures, such as personal protective equipment

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

**Hand protection:** Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min

according to Regulation (EC) No. 1907/2006

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Neoprene	>= 0.65 mm	> 240 min
butyl-rubber	>= 0.36 mm	> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

**General health and safety measures:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

## 8.2.3. Environmental exposure controls: No information available.

## 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid

Colour: black

Odour: No data available

Odour Threshold: No data available

**pH:** No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: 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

according to Regulation (EC) No. 1907/2006

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# Lower explosion limit: No data available

Vapour pressure: No data available

Vapour density: No data available

Specific gravity: No data available

Water solubility: soluble

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**

- 10.1. Reactivity: No data available
- **10.2. Chemical stability:** Stable under normal conditions.
- 10.3. Possibility of hazardous reactions: Hazardous polymerisation does not occur.
- 10.4. Conditions to avoid: No data available
- **10.5.** Incompatible materials: Strong oxidizing agents.
- 10.6. Hazardous decomposition products: Carbon oxides

## 11. Toxicological information

## **Effects of Exposure**

## Toxicokinetics, metabolism and distribution

No data available

according to Regulation (EC) No. 1907/2006

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## Acute toxicity

No data available

## Corrositivity and irritation

• Skin irritation: Mild skin irritation

## Sensitisation

No data available

## CMR effects Germ cell mutagenicity

No information available.

## Carcinogenicity

No information available.

## **Reproductive toxicity**

Suspected of damaging fertility. Suspected of damaging the unborn child. **Specific target organ toxicity - single exposure** 

- Ingestion (Kidney): Causes damage to organs.
- Ingestion (Central nervous system): Causes damage to organs.

# Specific target organ toxicity - repeated exposure

No information available.

## **Aspiration hazard**

No information available.

## Information on likely routes of exposure

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

Eyes: May cause transient irritation.

Skin: Causes mild skin irritation.

according to Regulation (EC) No. 1907/2006

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Ingestion: Can cause kidney damage and CNS effects following ingestion.

# Data for glycerol (CAS 56-81-5):

# Acute Toxicity Data:

Oral LD50 (Rat): 12,600 mg/kg

- Inhalation LC50 (Rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (Rabbit): > 10 g/kg
- Skin irritation: slight
- Eye irritation: very slight

# Data for ethanediol (CAS 107-21-1):

# Acute Toxicity Data:

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

- Oral LD50 (Rat): 4,700 mg/kg
- Inhalation (Rat): 2.5 mg/l / 6 hr
- Dermal LD50 (Rabbit): 10,607 mg/kg
- Dermal LD50 (Rat): 10,600 mg/kg
- Skin irritation: Mild skin irritation
- Eye irritation: none
- Sensitisation (human): none
- Sensitisation (Guinea pig): none

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

# Acute Toxicity Data:

Oral LD50 (Rat): > 5,000 mg/kg

- Oral LD50 (Rat): > 15,400 mg/kg
- Dermal LD50 (Rabbit): > 3,000 mg/kg
- Skin irritation: No skin irritation
- Eye irritation: No eye irritation
- Sensitisation (Guinea pig): Did not cause sensitisation on laboratory animals.

# 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)

# **12. Ecological information**

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

This product has not been tested for environmental effects.

according to Regulation (EC) No. 1907/2006

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# 12.1. Toxicity

Toxicity to fish (LC50):	> 100 mg/l estimated
--------------------------	----------------------

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

# 12.2. Persistence and degradability

Persistence and degradability: Not readily biodegradable.

# 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

No information available.

## 12.5. Results of PBT and vPvB assessment

No information available.

# 12.6. Other adverse effects

No information available.

# Additional ecological information:

Chemical Oxygen Demand (COD): ca. 259 g/l

Biochemical Oxygen Demand (BOD): ca. 107 g/l

# 13. Disposal considerations

## 13.1. Waste treatment methods

Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

## 14. Transport information

Not regulated for all modes of transportation.

according to Regulation (EC) No. 1907/2006

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

## 15. Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

#### 1907/2006/EC Article 59(1) - Candidate List of Substances Subject to Authorisation

This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

## 1907/2006/EC - Annex XIV - Substances Subject to Authorization

This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

#### 1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture contains ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH): 2-methoxypropanol (216-455-5)

# Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

## **Notification status**

Notification status
Not all listed
Not all listed
Listed
Not all listed
Listed
Listed
Not all listed
Not all listed
Not all listed

according to Regulation (EC) No. 1907/2006

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ECI	Not all listed
NZIoC	Not all listed
PICCS	Not all listed
TCSI	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.

## 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

## 16. Other information

## 16.1. Indication of changes

Corrected/updated:

Multiple changes due to format update

Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

# 16.2. Key or legend to abbreviations and acronyms used in the safety data sheet

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS = Australian Inventory of Chemical Substances; CAS = Chemical Abstracts Service; CLP = Classification, Labelling, and Packaging; DSL = Canada Domestic Substances List; EC = European Commission; EC50 = Effective Concentration 50%; ECI = Korea Existing Chemicals list; EH40 = EH40/2005 Workplace Exposure Limits; EINECS = European Inventory of Existing Commercial chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; HSA = Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Inhibitory Concentration 50%; IECS = China Inventory of Existing Chemical Substances; IMDG = International Maritime Dangerous Goods; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NDSL = Canada Non-Domestic Substances List; NLP = Europe No Longer Polymers; NZIoC = New Zealand Inventory of Chemicals; PBT = Persistent, Bioaccumulative and Toxic substances; PICCS = Philippines Inventory of Chemicals and Chemical Substances; ppm = parts per million; REACH= Registration, Evaluation and Authorization of Chemicals; RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail; TSCA = Toxic Substances Control Act; vPvB = very Persistent, very Bioaccumulative substances

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## 16.3. Key literature references and sources for data

Available upon request.

# 16.4. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

## 16.5. Relevant R- and H-phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs if swallowed.

## 16.6. Training advice

Review Safety Data Sheet before using product.

# **16.7.** Further information

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.

according to Regulation (EC) No. 1907/2006

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

**1.1. Product identifier:** KODAK Ink Combo Pack / 10B + 10C, Protective Ink

Product code: 3949948 - Protective Ink

Synonyms: None.

# **1.2.** Relevant identified uses of the substance or mixture and uses advised against:

**1.2.1. Identified uses:** ink or inkjet chemical

**1.3. Details of the supplier of the safety data sheet:** KODAK LIMITED, Building 8, Croxley Green Business Park, Hatters Lane, Watford, WD18 8PX, Great Britain

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

## **1.4. Emergency telephone number:**

Available during office hours only. IN EMERGENCY, telephone: 844 892 0111.

## 2. Hazards identification

2.1. Classification of the sub Classification according to R		272/2008 (CLP):
Hazard class / Hazard category	Hazard	Route of exposure
Repr. 2	H361	
STOT SE 1	H370	

# 2.2. Label elements:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

# Labelling according to 1272/2008/EC [CLP/GHS]:

Contains: glycerol, ethanediol

Symbol(s):

according to Regulation (EC) No. 1907/2006

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Signal word: Danger

## 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. 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/regional/national/international regulation.

## 2.3. Other hazards

None known.

3. Composi	ition/informatio	n on ingredients			
Weight percent	Component	CAS-No. EC No. REACH Reg. No.	Classification according to 1272/2008/EC	Classification according to 67/548/EEC	
10 - 15	glycerol				
		56-81-5		**	

according to Regulation (EC) No. 1907/2006

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	200-289-5 not available	**	
1 - < 10 ethanedio	l 107-21-1 203-473-3 01-2119456816-28- XXXX	Acute Tox. 4 H302 *	*

Full text of R- and H-phrases: see Section 16.

\* Substance classification as listed in Annex VI to Regulation (EC) No 1272/2008 \*\* Substance not listed in Annex VI to Regulation (EC) No 1272/2008

## 4. First aid measures

## 4.1. Description of first aid measures

4.1.1. Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**4.1.2. Skin:** Wash off immediately with soap and plenty of water. Get medical attention if symptoms occur.

**4.1.3. 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 persist.

**4.1.4. Ingestion:** If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur.

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

**4.3. Indication of any immediate medical attention and special treatment needed:** No information available.

# 5. Firefighting measures

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

# 5.2. Special hazards arising from the substance or mixture

5.2.1. Hazardous Combustion Products: Carbon oxides

# 5.2.2. Unusual Fire and Explosion Hazards: None.

**5.3.** Advice for firefighters: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

according to Regulation (EC) No. 1907/2006

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## 6. Accidental release measures

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

6.2. Environmental precautions: Prevent runoff from entering drains, sewers, or streams.

**6.3. 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.

**6.4. Reference to other sections:** See Section 8 for recommendations on the use of personal protective equipment.

## 7. Handling and storage

## 7.1. Precautions for safe handling

**7.1.1. Personal precautions:** Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

7.1.2. Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

**7.1.3. Ventilation:** Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

**7.2. Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep away from incompatible substances (see Incompatibility section.)

7.3. Specific end use(s): No information available.

## 8. Exposure controls/personal protection

# 8.1. Control parameters8.1.1. Occupational exposure controls

Chemical name	Regulatory List	Value Type	Value
glycerol	EH40	Time weighted average	10 mg/m3 Form of exposure: mist
		Short term exposure limit	30 mg/m3 Form of exposure: mist

according to Regulation (EC) No. 1907/2006

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			Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
		0 0	Form of exposure: particulates
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	30 mg/m3
			Form of exposure: particulate
			Remarks: calculated
		Short term exposure limit	40 ppm 104 mg/m3
			Form of exposure: vapour
			Potential for cutaneous absorption
glycerol	HSA	Time weighted average	10 mg/m3
			Form of exposure: mist
		Short term exposure limit	30 mg/m3
			Form of exposure: mist
			Remarks: calculated
ethanediol		Time weighted average	10 mg/m3
			Form of exposure: particulate
		Time weighted average	20 ppm 52 mg/m3
			Form of exposure: vapour
		Short term exposure limit	104 mg/m3
			Form of exposure: vapour
		Short term exposure limit	40 ppm
			Form of exposure: particulate
			Potential for cutaneous absorption

## 8.2. Exposure controls

**8.2.1.** Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

## 8.2.2. Individual protection measures, such as personal protective equipment

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

**Hand protection:** Using the information provided in Section 2, seek the advice of the glove supplier as to the most suitable glove material. Avoid skin contact when mixing or handling the substance/preparation or a mixture by wearing impervious gloves and protective clothing appropriate to the risk of exposure.

Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material	Thickness	Breakthrough time
Nitrile rubber	>= 0.38 mm	> 480 min
Neoprene	>= 0.65 mm	> 240 min

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butyl-rubber

>= 0.36 mm

> 480 min

Avoid natural rubber gloves.

The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

**Respiratory protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

**General health and safety measures:** Safety shower, eye wash, washing facilities as appropriate to condition of use.

## 8.2.3. Environmental exposure controls: No information available.

#### 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid

Colour: No data available

Odour: No data available

Odour Threshold: No data available

**pH:** No data available

Melting point/freezing point: No data available

**Initial boiling point and boiling range:** > 35 °C (> 95.0 °F) (estimated)

**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

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Lower explosion limit: No data available

Vapour pressure: No data available

Vapour density: No data available

Specific gravity: No data available

Water solubility: 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**

- 10.1. Reactivity: No data available
- 10.2. Chemical stability: Stable under normal conditions.
- 10.3. Possibility of hazardous reactions: Hazardous polymerisation does not occur.
- 10.4. Conditions to avoid: No data available
- **10.5.** Incompatible materials: Strong oxidizing agents.
- 10.6. Hazardous decomposition products: Carbon oxides

## 11. Toxicological information

## Effects of Exposure

## Toxicokinetics, metabolism and distribution

No data available

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## Acute toxicity

No data available

## Corrositivity and irritation

No data available

#### Sensitisation

No data available

## CMR effects Germ cell mutagenicity

No information available.

## Carcinogenicity

No information available.

## **Reproductive toxicity**

Suspected of damaging fertility. Suspected of damaging the unborn child. **Specific target organ toxicity - single exposure** 

• Ingestion (Kidney): Causes damage to organs.

## Specific target organ toxicity - repeated exposure

No information available.

## **Aspiration hazard**

No information available.

## Information on likely routes of exposure

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

Eyes: May cause transient irritation.

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

Ingestion: Can cause kidney damage.

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# Data for glycerol (CAS 56-81-5):

## Acute Toxicity Data:

Oral LD50 (Rat): 12,600 mg/kg

- Inhalation LC50 (Rat): > 570 mg/m3 / 1 hr
- Dermal LD50 (Rabbit): > 10 g/kg
- Skin irritation: slight
- Eye irritation: very slight

# Data for ethanediol (CAS 107-21-1):

# Acute Toxicity Data:

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

- Oral LD50 (Rat): 4,700 mg/kg
- Inhalation (Rat): 2.5 mg/l / 6 hr
- Dermal LD50 (Rabbit): 10,607 mg/kg
- Dermal LD50 (Rat): 10,600 mg/kg
- Skin irritation: Mild skin irritation
- Eye irritation: none
- Sensitisation (human): none
- Sensitisation (Guinea pig): none

# 12. Ecological information

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

This product has not been tested for environmental effects.

# 12.1. Toxicity

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

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

# 12.2. Persistence and degradability

Persistence and degradability: Not readily biodegradable.

# 12.3. Bioaccumulative potential

No data available

## 12.4. Mobility in soil

according to Regulation (EC) No. 1907/2006

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No information available.

## 12.5. Results of PBT and vPvB assessment

No information available.

## 12.6. Other adverse effects

No information available.

## 13. Disposal considerations

## 13.1. Waste treatment methods

Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

Waste material: European Waste Catalogue EWC: 08 03 13 Waste ink other than those mentioned in 08 03 12

**Product containers:** If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. The European Waste Catalogue Code is 15 01 06 mixed packaging.

The product does not need to be labelled in accordance with EC directives or respective national laws. Dispose of contents/container in accordance with local regulation.

## 14. Transport information

Not regulated for all modes of transportation.

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

# 15. Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

# 1907/2006/EC Article 59(1) - Candidate List of Substances Subject to Authorisation

This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

## 1907/2006/EC - Annex XIV - Substances Subject to Authorization

This mixture does not contain substances which are subject to an authorization according to Regulation (EC) No. 1907/2006 (REACH).

according to Regulation (EC) No. 1907/2006

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## 1907/2006/EC - Potential Substances of Very High Concern

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

## 1907/2006/EC - Annex XVII - Restrictions on Certain Dangerous Substances

This mixture does not contain ingredients which are subject to restrictions according to Regulation (EC) No. 1907/2006 (REACH)

# Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

This mixture does not contain substances listed in Detergents Regulation (648/2004) - Derogations and Banned or Restricted Detergent Surfactants

## **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
TCSI	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.

## 15.2. Chemical safety assessment

Chemical safety assessment has not been performed.

#### 16. Other information

according to Regulation (EC) No. 1907/2006

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# 16.1. Indication of changes

Corrected/updated: Multiple changes due to format update Minor changes may be present due to component or regulatory data updates

Review Safety Data Sheet before using product.

# 16.2. Key or legend to abbreviations and acronyms used in the safety data sheet

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS = Australian Inventory of Chemical Substances; CAS = Chemical Abstracts Service; CLP = Classification, Labelling, and Packaging; DSL = Canada Domestic Substances List; EC = European Commission; EC50 = Effective Concentration 50%; ECI = Korea Existing Chemicals list; EH40 = EH40/2005 Workplace Exposure Limits; EINECS = European Inventory of Existing Commercial chemical Substances; ELINCS = European List of Notified Chemical Substances; ENCS = Japan Existing and New Chemical Substances; GHS = Globally Harmonized System of Classification and Labelling of Chemicals; HSA = Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Inhibitory Concentration 50%; IECS = China Inventory of Existing Chemical Substances; IMDG = International Maritime Dangerous Goods: LC50 = Lethal Concentration 50%: LD50 = Lethal Dose 50%; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; NDSL = Canada Non-Domestic Substances List; NLP = Europe No Longer Polymers; NZIoC = New Zealand Inventory of Chemicals; PBT = Persistent, Bioaccumulative and Toxic substances; PICCS = Philippines Inventory of Chemicals and Chemical Substances; ppm = parts per million; REACH= Registration, Evaluation and Authorization of Chemicals; RID = European Agreement concerning the International Carriage of Dangerous Goods by Rail: TSCA = Toxic Substances Control Act; vPvB = very Persistent, very Bioaccumulative substances

# 16.3. Key literature references and sources for data

Available upon request.

# 16.4. Methods used for classification of mixture according to Regulation (EC) No 1272/2008

The determination of classifications is derived via expert judgment and/or weight of evidence.

# 16.5. Relevant R- and H-phrases

H302	Harmful if swallowed.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs if swallowed.

## 16.6. Training advice

according to Regulation (EC) No. 1907/2006

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Review Safety Data Sheet before using product.

# **16.7.** Further information

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.