

# Safety Data Sheet

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**Kodak alaris**

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

**Product name:** KODAK EKTACOLOR SM PROCESSING UNIT, P1, Part A (Developer)

**Product code:** 8079782 - Part A (Developer)

**Synonyms:** PCD 6610

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

**Identified uses:** photographic processing chemical (developer/activator). For industrial use only.

**Supplier:** Kodak Alaris Inc., 2400 Mount Read Boulevard, Rochester, NY 14615

IN EMERGENCY, telephone: 1-800-424-9300 or +1 703-527-3887.

For further information about this product, email [EHS-Questions@Kodakalaris.com](mailto:EHS-Questions@Kodakalaris.com).

## 2. Hazards identification

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

Hazard class	Hazard category	Route of exposure
Skin corrosion	Category 2	--
Serious eye damage	Category 2A	--
Skin sensitisation	Category 1	--
Specific target organ toxicity - single exposure	Category 2	Oral
Specific target organ toxicity - repeated exposure	Category 2	Oral

### GHS-Labeling

**Contains:**

Diethylene glycol (111-46-6), Sodium hydroxide (1310-73-2), 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine (92-09-1), N,N-diethylhydroxylamine (3710-84-7)

**Symbol(s):**

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**Signal word:** Warning

**Hazard statements:** Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs if swallowed. (Kidney, Central nervous system.) May cause damage to organs through prolonged or repeated exposure if swallowed. (Liver.)

**Precautionary statements:**

**Prevention:** Wear protective gloves/ eye protection/ face protection. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

**Response:** IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. 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. Take off contaminated clothing and wash before reuse.

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

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

**HMIS III Hazard Ratings:** Health - 2\*, Flammability - 1, Physical Hazard - 0

**NFPA Hazard Ratings:** Health - 2, Flammability - 1, Instability - 0

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

### 3. Composition/information on ingredients

Weight percent	Components - (CAS-No.)
45 - 50	Diethylene glycol (111-46-6)

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10 - 15	Potassium carbonate (584-08-7)
1 - 5	4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine (92-09-1)
1 - 5	N,N-diethylhydroxylamine (3710-84-7)
0.1 - < 0.5	Sodium hydroxide (1310-73-2)

## 4. First aid measures

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

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.

**Skin:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

**Ingestion:** If swallowed, DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

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

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

**Treatment:** No information available.

## 5. Firefighting measures

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

**Special hazards arising from the substance or mixture**

**Hazardous Combustion Products:** Carbon oxides, (see also Hazardous Decomposition Products sections.)

**Special Fire-Fighting Procedures:** Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

**Unusual Fire and Explosion Hazards:** None.

## 6. Accidental release measures

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

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**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.

**Environmental precautions:** No information available.

## 7. Handling and storage

### Precautions for safe handling

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

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

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

## 8. Exposure controls/personal protection

### Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
4-(N-ethyl-N-2-methanesulphonylminoethyl)-2-methylphenylenediamine	EK HPG	time weighted average	1 mg/m <sup>3</sup>
N,N-diethylhydroxylamine	ACGIH	time weighted average	2 ppm

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

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

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

**Hand protection:** Wear impervious gloves and protective clothing appropriate for the risk of exposure.

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

## 9. Physical and chemical properties

**Physical form:** liquid

**Colour:** clear orange

**Odour:** Citrus

**Specific gravity:** 1.213

**Vapour pressure (at 20.0 °C (68.0 °F)):** 24 mbar (18.0 mm Hg)

**Vapour density:** 0.6

**Boiling point/boiling range:** 100 °C (212.0 °F)

**Water solubility:** complete

**pH:** 13.7

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

**Evaporation rate:** No data available

**Flammability (Solid; gas):** No data available

**Upper explosion limit:** No data available

**Lower explosion limit:** No data available

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

**Auto-ignition temperature:** No data available

**Decomposition temperature:** No data available

**Viscosity:** No data available

**Explosive properties:** No data available

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**Oxidizing properties:** No data available

## 10. Stability and reactivity

**Reactivity:** No data available

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

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

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents.

**Hazardous decomposition products:** potassium oxide

## 11. Toxicological information

### Effects of Exposure

#### General advice:

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

Contains: 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine. May cause kidney damage based on animal data.

Contains: Sodium hydroxide. The following exposure effects are based on pH of the solution, concentration of the base, and a review of the literature.

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

**Eyes:** Causes serious eye irritation.

**Skin:** Causes skin irritation. May cause an allergic skin reaction.

**Ingestion:** May cause damage to organs if swallowed. May cause damage to organs through prolonged or repeated exposure if swallowed.

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

#### Acute Toxicity Data:

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

- Oral LD50 Oral (Humans): 1,120 mg/kg
- Inhalation LC50 (rat): > 5.08 mg/l / 4 hr
- Dermal LD50 (rabbit): 11,890 mg/kg
- Skin irritation: slight to moderate
- Eye irritation: mild

#### **Mutagenicity/Genotoxicity Data:**

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

#### **Data for Potassium carbonate (CAS 584-08-7):**

##### **Acute Toxicity Data:**

Oral LD50 (rat): 1,870 mg/kg

#### **Data for 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine (CAS 92-09-1):**

##### **Acute Toxicity Data:**

Oral LD50 (rat): 200 mg/kg

- Skin Sensitization (guinea pig): moderate (Causes sensitisation on guinea-pigs.)

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

##### **Carcinogenicity:**

- Dermal study (mouse, 2 years): NOEL; 62 mg/kg/day (only dose tested)

#### **Data for N,N-diethylhydroxylamine (CAS 3710-84-7):**

##### **Acute Toxicity Data:**

Oral LD50 (rat): 2,190 mg/kg

- Inhalation LC50 (rat): 3140 ppm / 4 hr
- Dermal LD50 (rabbit): 1,300 mg/kg
- Skin irritation: severe
- Skin Sensitization (guinea pig): negative
- Eye irritation (unwashed eyes): moderate

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

##### **Repeated dose toxicity:**

- Inhalation (28-day, male and female rat): NOAEL; 150 ppm/6 hours/day

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## Data for Sodium hydroxide (CAS 1310-73-2):

### Acute Toxicity Data:

Oral LD50 (rat): 50 - 400 mg/kg

- Skin irritation: Severe skin irritation
- Eye irritation: severe

### Carcinogenicity

American Conference of Governmental Industrial Hygienists (ACGIH):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
International Agency for Research on Cancer (IARC):	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 12. Ecological information

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

### Potential Toxicity:

Toxicity to fish (LC50): 1 - 10 mg/l

Toxicity to daphnia (EC50): 1 - 10 mg/l

**Persistence and degradability:** Readily biodegradable.



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## Bioaccumulative potential

No data available

## Mobility in soil

No information available.

## 13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

Not regulated for all modes of transportation.

For more transportation information, go to: [www.kodak.com/go/ship](http://www.kodak.com/go/ship).

## 15. Regulatory information

### Notification status

Regulatory List	Notification status
TSCA	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

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

### Other regulations

U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	No components of this product are subject to the SARA Section 302 (40 CFR 302.4) reporting requirements.
U.S. - CERCLA/SARA - Section 302 (40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities):	No components of this product are subject to the SARA Section 302 (40 CFR 355) reporting requirements.
U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	No components of this product are subject to the SARA Section 313 (40 CFR 372.65) reporting requirements.
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	No components found on the California Director's List of Hazardous Substances.
U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens:	No components found on the California Specifically Regulated Carcinogens List.
U.S. - California - 8 CCR Section 5203 Carcinogens:	No components found on the California Section 5203 Carcinogens List.
U.S. - California - 8 CCR Section 5209 Carcinogens:	No components found on the California Section 5209 Carcinogens List.
U.S. - Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous Substances Disclosure by Employers (a.k.a. Right to Know Law):	No components regulated under the Massachusetts Hazardous Substances Disclosure by Employers Law.
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Diethylene glycol
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	No components regulated under the New Jersey Worker and Community Right-to-Know Act.
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Diethylene glycol , Water , Potassium carbonate , 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-

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methylphenylenediamine , Sodium  
hydroxide

## 16. Other information

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.

### US/Canadian Label Statements:

#### KODAK EKTACOLOR SM PROCESSING UNIT, P1, Part A (Developer)

##### Contains:

Diethylene glycol (111-46-6), Sodium hydroxide (1310-73-2), 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine (92-09-1), N,N-diethylhydroxylamine (3710-84-7)

##### Symbol(s):



**Signal word:** Warning

**Hazard statements:** Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs if swallowed. (Kidney, Central nervous system.) May cause damage to organs through prolonged or repeated exposure if swallowed. (Liver.)

##### Precautionary statements:

**Prevention:** Wear protective gloves/ eye protection/ face protection. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

**Response:** IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. 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. Take off contaminated clothing and wash before reuse.

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

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

**FIRST AID:** If symptomatic, move to fresh air. Get medical attention if symptoms occur. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes. If swallowed, DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately. Keep out of reach of children. Do not handle or use until safety precautions in Material Safety Data Sheet (MSDS) have been read and understood. Since emptied containers retain product residue, follow label warnings even after container is emptied. **IN CASE OF FIRE:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. **IN CASE OF SPILL:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Additional Components Include: Water (7732-18-5)

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

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R-1, S-2, F-1, C-0