

# Safety Data Sheet

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**Kodak alaris**

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

**Product name:** KODAK T-MAX RS Developer and Replenisher, Part B

**Product code:** 5054184 - Part B

**Synonyms:** PCD F1220

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

**Identified uses:** photographic processing chemical. 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
Acute toxicity	Category 4	Inhalation - Vapours
Acute toxicity	Category 4	Oral
Serious eye damage/eye irritation	Category 2A	--
Skin sensitisation	Category 1	--
Respiratory sensitisation	Category 1	--
Target Organ Systemic Toxicant - Single exposure	Category 2	Oral
Target Organ Systemic Toxicant - Repeated exposure	Category 2	Oral

### GHS-Labeling

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

**Other hazards which do not result in classification:**

May form explosive peroxides.

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

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

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.)
90 - 99	Diethylene glycol (111-46-6)
1 - 5	Acetic acid (64-19-7)
0.1 - < 1	1,4-diphenyl-3-(phenylammonio)-1H-1,2,4-triazolium (2218-94-2)

### 4. First aid measures

**Inhalation:** IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Eyes:** 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.

**Skin:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

**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**

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**Hazardous Combustion Products:** Carbon oxides

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

**Unusual Fire and Explosion Hazards:** Forms peroxides of unknown stability.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** If peroxide formation is suspected, do not open or move container. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Do not distill or allow to evaporate to near dryness. Keep away from heat and flame. Refer to protective measures listed in sections 7 and 8.

**Methods and materials for containment and cleaning up:** Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

**Environmental precautions:** No information available.

## 7. Handling and storage

### Precautions for safe handling

**Personal precautions:** Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

**Prevention of Fire and Explosion:** Keep from contact with oxidizing materials. If peroxide formation is suspected, do not open or move container. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. Do not distill or allow to evaporate to near dryness. Keep material from heat, light, and flame.

**Conditions for safe storage, including any incompatibilities:** Protect against light. 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
Acetic acid	ACGIH	time weighted average	10 ppm

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Acetic acid	OSHA	Short term exposure limit time weighted average	15 ppm 10 ppm 25 mg/m3
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**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 eye/face protection.

**Hand protection:** Wear protective gloves.

**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: full-face with organic vapour & P95 particulate filter. 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:** amber

**Odour:** vinegar

**Specific gravity:** 1.12

**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:** No data available

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

**Evaporation rate:** No data available

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

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**Upper explosion limit:** No data available

**Lower explosion limit:** No data available

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

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

**Decomposition temperature:** No data available

**Viscosity:** No data available

**Explosive properties:** No data available

**Oxidizing properties:** No data available

## 10. Stability and reactivity

**Reactivity:** No data available

**Chemical stability:** Stable; however, forms peroxides of unknown stability.

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

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents.

**Hazardous decomposition products:** None under normal conditions of use.

## 11. Toxicological information

### Effects of Exposure

#### General advice:

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

Contains: 1,4-diphenyl-3-(phenylammonio)-1H-1,2,4-triazolium. The toxicological properties of this material have not been fully investigated and its handling and use may present additional hazards.

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**Inhalation:** Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Eyes:** Causes serious eye irritation.

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

**Ingestion:** Harmful if swallowed.

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

### Acute Toxicity Data:

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

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

### Mutagenicity/Genotoxicity Data:

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

## Data for Acetic acid (CAS 64-19-7):

### Acute Toxicity Data:

Oral LD50 (rat): 3,310 - 3,530 mg/kg

- Inhalation LC50 (rat): 11.4 mg/l 4641 ppm / 4 hr
- Dermal LD50: 1,060 mg/kg
- Skin irritation: severe
- Eye irritation (washed eyes): severe
- Eye irritation (unwashed eyes): severe

## Data for 1,4-diphenyl-3-(phenylammonio)-1H-1,2,4-triazolium (CAS 2218-94-2):

### Acute Toxicity Data:

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

- Dermal LD50 (guinea pig): > 2,200 mg/kg
- Skin irritation: very slight

## 12. Ecological information

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

### Potential Toxicity:

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

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

Toxicity to algae (IC50): > 100 mg/l

Toxicity to other organisms (EC50): > 100 mg/l

**Persistence and degradability:** Readily biodegradable.

**Chemical Oxygen Demand (COD):** ca. 1731 g/l

**Biochemical Oxygen Demand (BOD):** ca. 206 g/l

## 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	All listed
NDSL	None listed
EINECS	All listed

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ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	Not all listed
ECI	All listed
NZIoC	All listed
PICCS	Not all listed

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

### Other regulations

American Conference of Governmental Industrial Hygienists (ACGIH):	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.
U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	Acetic acid



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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:	Acetic acid
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):	Acetic acid
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Diethylene glycol , Acetic acid
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Acetic acid
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Diethylene glycol , Acetic acid

### 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 T-MAX RS Developer and Replenisher, Part B

**Hazard statements:** Harmful if inhaled. Harmful if swallowed. Causes serious eye irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if

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inhaled. May cause damage to organs if swallowed. (Central nervous system, Kidney.) May cause damage to organs through prolonged or repeated exposure if swallowed. (Liver.)

**FIRST AID:** IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. 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 ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. 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.

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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-2, S-2, F-1, C-1E