

Material Safety Data Sheet



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

Product name: KODAK EKTACOLOR RA Developer Replenisher RT, Part A

Product code: 8477184 - Part A

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

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

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

Synonyms: PCD 6076

Product Use: photographic processing chemical (developer/activator), For industrial use only.

2. Hazards identification

CONTAINS: Triethanolamine (102-71-6), N,N-diethylhydroxylamine (3710-84-7)

WARNING!

COMBUSTIBLE LIQUID AND VAPOR
HEAT SENSITIVE - CAN DECOMPOSE IF HEATED
HARMFUL IF ABSORBED THROUGH SKIN OR SWALLOWED
MAY BE HARMFUL IF INHALED
CAUSES SKIN AND EYE IRRITATION
MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA
MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA

HMIS III Hazard Ratings: Health - 2*, Flammability - 2, Reactivity (Stability) - 1

NFPA Hazard Ratings: Health - 3, Flammability - 2, 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.)
20 - 25	Triethanolamine (102-71-6)
10 - 15	N,N-diethylhydroxylamine (3710-84-7)

4. First aid measures

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

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Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin: In case of contact, immediately flush 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, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.

5. Fire-fighting measures

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

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

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

Unusual Fire and Explosion Hazards: Classified as combustible. Material contains a combustible solvent that may accumulate in the container headspace. Elevated temperature can cause decomposition.

6. Accidental release measures

Remove all sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

7. Handling and storage

Personal precautions: Do not breathe mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat and sources of ignition. Use only with adequate ventilation. Keep from contact with oxidizing materials.

Storage: Store in cool place. 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
Triethanolamine	ACGIH	time weighted average	5 mg/m ³

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Ventilation: 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.

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

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

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

9. Physical and chemical properties

Physical form: liquid

Colour: yellow

Odour: amine

Specific gravity: 1.05

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

Vapour density: 0.6

Volatile fraction by weight: 60 - 65 %

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

Water solubility: complete

pH: 10.9

Flash point: 65 °C (149.0 °F)

10. Stability and reactivity

Stability: Stable under normal conditions. Safe handling temperatures are dependent on specific conditions of use and are typically substantially below the onset temperature. Consult your technical safety experts.

Exotherm onset temperature: 169 °C by DSC

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: nitrogen oxides (NO_x)

Hazardous Polymerization: Hazardous polymerisation does not occur.

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11. Toxicological information

Effects of Exposure

General advice:

Contains: Triethanolamine. Based on animal data, may cause adverse effects on the following organs/systems: kidney, liver.

Contains: N,N-diethylhydroxylamine. The toxicological properties of this material have not been fully investigated and its handling and use may present additional hazards.

Inhalation: May be harmful if inhaled.

Eyes: Causes eye irritation.

Skin: Causes skin irritation. Harmful if absorbed through skin.

Ingestion: Harmful if swallowed.

Data for Triethanolamine (CAS 102-71-6):

Acute Toxicity Data:

Oral LD50 (rat): 9,119 mg/kg

- Dermal LD50 (rat): > 17,984 mg/kg
- Dermal LD50 (rabbit): > 22,480 mg/kg
- Skin irritation: Mild skin irritation
- Skin Sensitization (guinea pig): negative
- Eye irritation: Irritating to eyes.

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

12. Ecological information

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

Potential Toxicity:

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

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

Persistence and degradability: Readily biodegradable.

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.

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	All listed
ENCS	All listed
ECI	All listed
NZIoC	All listed
PICCS	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

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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):	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	Triethanolamine

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111F) - Hazardous Substances Disclosure by
Employers (a.k.a. Right to Know Law):

U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Triethanolamine
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Triethanolamine
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapters 301-323):	Triethanolamine, N,N-diethylhydroxylamine, Water, Substituted stilbene
U.S. - Rhode Island - Title 28 Labor and Labor Relations (Chapters 28-21 Hazardous Substance Right-to-Know Act):	Triethanolamine

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 RA Developer Replenisher RT, Part A

CONTAINS: Triethanolamine (102-71-6), N,N-diethylhydroxylamine (3710-84-7).

WARNING! COMBUSTIBLE LIQUID AND VAPOR. HEAT SENSITIVE - CAN DECOMPOSE IF HEATED. HARMFUL IF ABSORBED THROUGH SKIN OR SWALLOWED. MAY BE HARMFUL IF INHALED. CAUSES SKIN AND EYE IRRITATION. MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA. MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA.

Keep away from heat and sources of ignition. Store in cool place. Do not breathe vapours or spray mist. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling. **FIRST AID:** If inhaled, remove to fresh air. Get medical attention. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of contact, immediately flush 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, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately. 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. Use water spray to cool unopened containers. **IN CASE OF SPILL:** Remove all sources of ignition. 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), Substituted stilbene (not applicable), Lithium polystyrenesulphonate (9016-91-5).

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

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the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

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