

MATERIAL SAFETY DATA SHEET

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

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

Product code: 8477184 - Part A

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

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

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

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: PCD 6076

2. Hazards identification

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

WARNING!

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

HMIS II Hazard Ratings:

Health - 2*, Flammability - 2, Reactivity (Stability) - 1

NFPA Hazard Ratings:

Health - 2, Flammability - 2, Instability - 1

NOTE: HMIS II and NFPA 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. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
60 - 65	Water (7732-18-5)
20 - 25	Triethanolamine (102-71-6)
10 - 15	N,N-diethylhydroxylamine (3710-84-7)
1 - 5	Substituted stilbene (82640-05-9)

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< 1

Lithium polystyrenesulphonate (9016-91-5)

4. First aid measures

Inhalation: If inhaled, move to fresh air. Treat symptomatically. Get medical attention.

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 reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

5. Fire-fighting measures

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

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products. Use water spray to cool unopened containers.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides (NO_x), sulfur oxides

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

Methods for cleaning up: Remove all sources of ignition. Flush into sewer with plenty of water. Otherwise, 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: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat and sources of ignition. Ensure 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

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Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Triethanolamine	ACGIH	Time Weighted Average (TWA):	5 mg/m ³

Ventilation: 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.

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 OSHA Standard 29CFR 1910.134 and 29CFR1910.1048.

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

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

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

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)

Vapor density (air = 1): 0.6

Volatile fraction by weight: 60 - 65 %

Boiling point/range: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: 10.9

Flash point: 60.0 °C (140.0 °F) (Setaflash closed cup)

10. Stability and reactivity

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Stability: 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: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

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.

Inhalation: May be harmful if inhaled.

Eyes: Causes eye irritation.

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

Ingestion: Harmful if swallowed.

12. Ecological information

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

Potential Toxicity:

Fish LC50: > 100 mg/l

Daphnid EC50: > 100 mg/l

Algal IC50: > 100 mg/l

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Readily biodegradable

Potential Bioaccumulation: log Pow < 1

COD (approximate): 760 g/l

BOD (approximate): 360 g/l

13. Disposal considerations

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Discharge, treatment, or disposal is subject to national, state, provincial, or municipal laws. Consult state or local regulatory authorities before flushing to sewer with large amounts of water. 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 transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): Triethanolamine: 3 (not classifiable as to carcinogenicity to humans)

American Conference of Governmental Industrial Hygienists (ACGIH): none

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

16. Other information

US/Canadian Label Statements:

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

WARNING!

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

Avoid breathing mist or vapour.
Avoid contact with eyes, skin, and clothing.
Ensure adequate ventilation.
Wash thoroughly after handling.
Store in cool place.
Keep away from heat and sources of ignition.
Keep container tightly closed.

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FIRST AID: 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 center immediately. If inhaled, move to fresh air. Treat symptomatically. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of skin contact, immediately flush 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.

Keep out of reach of children.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

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.

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

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

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

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

Product code: 8477184 - Part B

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

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

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

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: PCD 6157

2. Hazards identification

CONTAINS: 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3), Potassium sulphite (10117-38-1), Lithium sulphate (10377-48-7)

WARNING!

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA

HARMFUL IF SWALLOWED

CAUSES SKIN AND EYE IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED

HMIS II Hazard Ratings:

Health - 2*, Flammability - 1, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 2, Flammability - 1, Instability - 0

NOTE: HMIS II and NFPA 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. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
70 - 75	Water (7732-18-5)
15 - 20	4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3)
5 - 10	Lithium sulphate (10377-48-7)
< 1	Potassium sulphite (10117-38-1)
< 1	Magnesium sulphate (7487-88-9)

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4. First aid measures

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

Eyes: Immediately flush 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: Only induce vomiting at the instruction of medical personnel. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

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

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), sulfur oxides

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Methods for 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.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Wash thoroughly after handling.

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

Storage: 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-methanesulphonylaminoethyl)-2-	EK HPG	Time Weighted Average (TWA):	1.0 mg/m ³

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methylphenylenediami
ne sesquisulphate
monohydrate

Ventilation: 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.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: Acid gas. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29CFR 1910.134 and 29CFR1910.1048.

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

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

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: tan

Odour: sharp sulphur dioxide

Specific gravity: 1.14

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

Vapor density (air = 1): 0.6

Volatile fraction by weight: 70 - 75 %

Boiling point/range: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: 1.4

Flash point: > 93.3 °C (> 200.0 °F) (estimated)

10. Stability and reactivity

Stability: Stable

Incompatibility: strong oxidizing agents.

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Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice:

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

Contains: Lithium sulphate. The toxicological properties of this material have not been fully investigated and its handling and use may present additional hazards. This material is pharmacologically active. Can cause CNS effects.

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

Eyes: Causes irritation.

Skin: Causes irritation. May cause allergic skin reaction.

Ingestion: Harmful if swallowed. May cause irritation of the gastrointestinal tract if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Data for 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate:

Acute Toxicity Data:

- Oral LD50 (male rat): 400 mg/kg (target organ effects: kidney)
- Oral LD50 (female rat): 246 mg/kg
- Dermal LD50: > 1,000 mg/kg (highest dose tested)
- Skin irritation: slight
- Skin irritation: moderate (repeated skin application)
- Skin Sensitization: moderate
- Skin Sensitization (human): positive
- Eye irritation (unwashed eyes): Moderate eye irritation
- Eye irritation (washed eyes): slight

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:

- Oral study (hamster, 2 years): NOEL; 0.04 % in diet (highest dose tested)
- Dermal study (mouse, 2 years): NOEL; 62 mg/kg (only dose tested)

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12. Ecological information

Potential Toxicity:

Fish LC50:	1 - 10 mg/l
Daphnid EC50:	10 - 100 mg/l
Algal IC50:	10 - 100 mg/l

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Readily biodegradable

Potential Bioaccumulation: log Pow < 1

COD (approximate): 186 g/l

BOD (approximate): 22 g/l

13. Disposal considerations

Discharge, treatment, or disposal is subject to national, state, provincial, or municipal laws. Contract with a licensed chemical disposal agency. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

US DOT: UN Number: UN3265
Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate)
Class: 8
Packaging group: III

IMDG: UN Number: UN3265
Proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate)
Class: 8
Packaging group: III

IATA: UN Number: UN3265
Proper shipping name: Corrosive liquid, acidic, organic, n.o.s. (4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine

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Class: sesquisulphate monohydrate)
8
Packaging group: III

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): Potassium sulphite: 3 (not classifiable as to carcinogenicity to humans)

American Conference of Governmental Industrial Hygienists (ACGIH): none

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

16. Other information

US/Canadian Label Statements:

CONTAINS: 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3), Potassium sulphite (10117-38-1), Lithium sulphate (10377-48-7)

WARNING!

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA

HARMFUL IF SWALLOWED

CAUSES SKIN AND EYE IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN FULLY INVESTIGATED

Avoid prolonged or repeated breathing of mist or vapour.

Do not get in eyes, on skin, or on clothing.

Keep container closed.

Ensure adequate ventilation.

Wash thoroughly after handling.

FIRST AID: 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 center immediately. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of skin contact, immediately flush 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.

Keep out of reach of children.

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For additional information, see Material Safety Data Sheet (MSDS) for this material.

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

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.

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

R-1, S-3, F-1, C-0

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

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

Product code: 8477184 - Part C

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

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

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

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: PCD 6087

2. Hazards identification

CONTAINS: Potassium hydroxide (1310-58-3), Potassium carbonate (584-08-7)

DANGER!

CAUSES SEVERE EYE BURNS

DUST, MIST OR VAPOUR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRACT

HARMFUL IF SWALLOWED

HMIS II Hazard Ratings:

Health - 3, Flammability - 0, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 2, Flammability - 0, Instability - 0

NOTE: HMIS II and NFPA 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. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
60 - 65	Water (7732-18-5)
30 - 35	Potassium carbonate (584-08-7)
1 - 3	Potassium hydroxide (1310-58-3)
1 - 5	Potassium chloride (7447-40-7)
< 1	Substituted phosphonate (2809-21-4)

4. First aid measures

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Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Eyes: Rinse immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

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

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Notes to physician:

Treatment: Strong alkalis bind tissue protein. Following initial flushing of the eye with water, continued irrigation of the eye with saline is recommended. Treatment should be continued until pH of tears reaches neutral.

5. Fire-fighting measures

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Hazardous Combustion Products: None (noncombustible)

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Methods for 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.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Do not get in eyes and avoid contact with skin and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special technical protective measures required.

Storage: 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
Potassium hydroxide	ACGIH	Ceiling Limit Value:	2 mg/m ³

Ventilation: Good general ventilation should be used. Ventilation should be sufficient so that applicable

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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.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. Respirator type: N95 Particulate Filter. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29CFR 1910.134 and 29CFR1910.1048.

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection: It is a good industrial hygiene practice to minimize skin contact. Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: colourless

Odour: odourless

Specific gravity: 1.37

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

Vapor density (air = 1): 0.6

Volatile fraction by weight: 60 - 65 %

Boiling point/range: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: > 14

Flash point: none, noncombustible liquid

10. Stability and reactivity

Stability: Stable.

Incompatibility: Acids.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

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11. Toxicological information

Effects of Exposure

Inhalation: Airborne dust/mist/vapor extremely irritating.

Eyes: Causes eye burns. Airborne dust/mist/vapor extremely irritating.

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

Ingestion: Harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed.

Acute Toxicity Data:

- Skin irritation: none
- Eye irritation: severe

12. Ecological information

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

Potential Toxicity:

Fish LC50: > 100 mg/l

Daphnid EC50: > 100 mg/l

Algal IC50: > 100 mg/l

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Not readily biodegradable.

Potential Bioaccumulation: $\log P_{ow} < 1$

COD (approximate): < 1 g/l

BOD (approximate): < 1 g/l

13. Disposal considerations

Discharge, treatment, or disposal is subject to national, state, provincial, or municipal laws. Contract with a licensed chemical disposal agency. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

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US DOT: UN Number: UN1814
Proper shipping name: Potassium hydroxide, solution
Class: 8
Packaging group: III

IMDG: UN Number: UN1814
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION
Class: 8
Packaging group: III

IATA: UN Number: UN1814
Proper shipping name: Potassium hydroxide solution
Class: 8
Packaging group: III

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): none
American Conference of Governmental Industrial Hygienists (ACGIH): none
U.S. National Toxicology Program (NTP): none
U.S. Occupational Safety and Health Administration (OSHA): none

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

16. Other information

US/Canadian Label Statements:

CONTAINS: Potassium hydroxide (1310-58-3), Potassium carbonate (584-08-7)

DANGER!

CAUSES SEVERE EYE BURNS

DUST, MIST OR VAPOUR EXTREMELY IRRITATING TO THE EYES AND RESPIRATORY TRACT

HARMFUL IF SWALLOWED

Do not get in eyes and avoid contact with skin and clothing.
Avoid breathing mist or vapour.
Ensure adequate ventilation.
Wash thoroughly after handling.

FIRST AID: If inhaled, move to fresh air. Treat symptomatically. Get medical attention if symptoms occur. If swallowed, do NOT induce vomiting. Give victim a glass of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. In case of

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eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Notes to physician: Strong alkalis bind tissue protein. Following initial flushing of the eye with water, continued irrigation of the eye with saline is recommended. Treatment should be continued until pH of tears reaches neutral.

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.

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

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

Product name: KODAK EKTACOLOR RA Developer Replenisher RT, Working solution

Product code: 8477184 - Working solution

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

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

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

For other information or to request an MSDS, call (800) 242-2424.

Synonyms: None.

2. Hazards identification

CONTAINS: 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3), Potassium hydroxide (1310-58-3), Triethanolamine (102-71-6)

WARNING!

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA
MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA
HARMFUL IF SWALLOWED
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
MAY BE HARMFUL IF INHALED
CAUSES SKIN AND EYE IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION

HMIS II Hazard Ratings:

Health - 2*, Flammability - 0, Reactivity (Stability) - 0

NFPA Hazard Ratings:

Health - 1, Flammability - 0, Instability - 0

NOTE: HMIS II and NFPA 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. An asterisk (*), in the HMIS II health field, designates potential chronic or target organ hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight %	Components (CAS-No.)
90 - 95	Water (7732-18-5)
1 - 5	Potassium carbonate (584-08-7)
1 - 5	Triethanolamine (102-71-6)
< 1	4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine

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sesquisulphate monohydrate (25646-71-3)
< 1 N,N-diethylhydroxylamine (3710-84-7)
< 0.5 Potassium hydroxide (1310-58-3)

4. First aid measures

Inhalation: If inhaled, move to fresh air. Treat symptomatically. Get medical attention.

Eyes: Immediately flush 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 reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Only induce vomiting at the instruction of medical personnel. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Fire-Fighting Procedures: None (noncombustible)

Hazardous Combustion Products: None (noncombustible)

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Methods for cleaning up: Flush into sewer with plenty of water. Otherwise, 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: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special technical protective measures required.

Storage: Keep container tightly closed.

8. Exposure controls / personal protection

Occupational exposure controls

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Chemical Name	Regulatory List	Value Type	Value
Potassium hydroxide	ACGIH	Ceiling Limit Value:	2 mg/m3
Triethanolamine	ACGIH	Time Weighted Average (TWA):	5 mg/m3
4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate	EK HPG	Time Weighted Average (TWA):	1.0 mg/m3

Ventilation: 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.

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 OSHA Standard 29CFR 1910.134 and 29CFR1910.1048.

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

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

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and Chemical Properties

Physical form: liquid

Colour: light yellow

Odour: strong amine

Specific gravity: 1.03

Vapour pressure: 24 mbar (18.0 mm Hg)

Vapor density (air = 1): 0.6

Volatile fraction by weight: 90 - 95 %

Boiling point/range: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: 10.7 - 10.8

Flash point: none, noncombustible liquid

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10. Stability and reactivity

Stability: Stable

Incompatibility: None with common materials and contaminants with which the material may reasonably come into contact.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

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.

Inhalation: May be harmful if inhaled.

Eyes: Causes irritation.

Skin: Causes irritation. May cause allergic skin reaction. May be harmful if absorbed through skin.

Ingestion: Harmful if swallowed. May cause irritation of the gastrointestinal tract if swallowed.

12. Ecological information

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

Potential Toxicity:

Fish LC50: > 100 mg/l

Daphnid EC50: > 100 mg/l

Algal IC50: > 100 mg/l

Waste treatment organisms EC50: > 100 mg/l

Organics Readily Degradable: Readily biodegradable

Potential Bioaccumulation: $\log P_{ow} < 1$

COD (approximate): 40 g/l

BOD (approximate): 19 g/l

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13. Disposal considerations

Discharge, treatment, or disposal may be subject to national, state, or local laws. Consult state or local regulatory authorities before flushing to sewer with large amounts of water. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

For transportation information regarding this product call the Kodak Worldwide Transportation Hazmat Hot Line: (585) 722-2400 between 8 a.m. and 5 p.m. (Eastern Standard Time), Monday through Friday. In Canada: General Shipping Information, call: (416) 766-8233.

15. Regulatory information

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): Triethanolamine: 3 (not classifiable as to carcinogenicity to humans)

American Conference of Governmental Industrial Hygienists (ACGIH): none

U.S. National Toxicology Program (NTP): none

U.S. Occupational Safety and Health Administration (OSHA): none

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

16. Other information

US/Canadian Label Statements:

CONTAINS: 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3), Potassium hydroxide (1310-58-3), Triethanolamine (102-71-6)

WARNING!

MAY CAUSE LIVER DAMAGE BASED ON ANIMAL DATA

MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA

HARMFUL IF SWALLOWED

MAY BE HARMFUL IF ABSORBED THROUGH SKIN

MAY BE HARMFUL IF INHALED

CAUSES SKIN AND EYE IRRITATION

MAY CAUSE ALLERGIC SKIN REACTION

Avoid prolonged or repeated breathing of mist or vapour.

Avoid contact with eyes, skin, and clothing.

Use with adequate ventilation.

Wash thoroughly after handling.

FIRST AID: 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 center immediately. If

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inhaled, move to fresh air. Treat symptomatically. In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention. In case of skin contact, immediately flush 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.

Keep out of reach of children.

For additional information, see Material Safety Data Sheet (MSDS) for this material.

Additional hazard precautions for containers greater than 1 gallon of liquid or 5 pounds of solid:

Since emptied containers retain product residue, follow label warnings even after container is emptied.

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

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