

# Safety Data Sheet

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**Kodak alaris**

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

**Product name:** KODAK EKTACOLOR RA DEVELOPER REPLENISHER RT KIT, Part B

**Product code:** 8415580 - Part B

**Synonyms:** PCD 6147

**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
Corrosive to metals	Category 1	--
Acute toxicity	Category 4	Oral
Skin corrosion/irritation	Category 2	--
Serious eye damage/eye irritation	Category 2A	--
Skin sensitisation	Category 1	--
Target Organ Systemic Toxicant - Single exposure	Category 2	--
Respiratory sensitisation	Category 3	--

### GHS-Labeling

**Contains:**

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

**Symbol(s):**

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**Signal word:** Warning

**Hazard statements:** May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs. (Kidney.) May cause respiratory irritation.

**Precautionary statements:**

**Prevention:** Keep only in original container. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ eye protection/ face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

**Response:** Absorb spillage to prevent material damage. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 it before reuse. IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

**Storage:** Store in corrosive resistant container with resistant inliner. Store in a well-ventilated place. Keep container tightly closed.

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

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

Can decompose at elevated temperatures.

MAY LIBERATE SULFUR DIOXIDE

THIS MATERIAL IS PHARMACOLOGICALLY ACTIVE

The physical-chemical and toxicological properties of this material have not been fully investigated.

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

**NFPA Hazard Ratings:** Health - 3, Flammability - 1, Instability - 1

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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	4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (25646-71-3)
5 - 10	Lithium sulphate (10377-48-7)
1 - 5	Potassium sulphite (10117-38-1)

## 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.

**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**

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

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**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:** Fire or high temperatures may cause decomposition.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** 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. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Keep container tightly closed. 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 away from heat and sources of ignition. 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-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate	EK HPG	Time Weighted Average (TWA):	1.0 mg/m <sup>3</sup>
Sulphur dioxide	ACGIH	Short term exposure limit	0.25 ppm

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OSHA                      time weighted average                      5 ppm 13 mg/m3

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

## Individual protection measures, such as personal protective equipment

**Eye protection:** Wear eye/face protection.

**Hand protection:** Wear protective gloves.

**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 applicable federal, state, commonwealth, provincial, or local laws and regulations.

## 9. Physical and chemical properties

**Physical form:** liquid

**Colour:** amber

**Odour:** sharp sulphur dioxide

**Specific gravity:** 1.1950

**Vapour pressure:** 24 mbar (18.0 mm Hg)

**Vapour density:** 0.6

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

**Water solubility:** complete

**pH:** 1.2

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

**Evaporation rate:** No data available

**Flammability Limits:** Not specified

**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:** Not fully evaluated. Materials containing similar structural groups can decompose if heated.

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

**Conditions to avoid:** No data available

**Incompatible materials:** Strong oxidizing agents, Bases.

**Hazardous decomposition products:** Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides

## 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.

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**Inhalation:** May cause respiratory irritation.

**Eyes:** Causes serious eye irritation.

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

**Ingestion:** Harmful if swallowed.

## Data for 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (CAS 25646-71-3):

### 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: moderate (repeated skin application)
- Skin Sensitization (guinea pig): moderate
- Skin Sensitization (human): positive
- Eye irritation (unwashed eyes): moderate
- 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)

## Data for Lithium sulphate (CAS 10377-48-7):

### Acute Toxicity Data:

Oral LD50 (mouse): 1,190 mg/kg

- Oral LD50 (rat): 800 - 1,600 mg/kg
- Dermal LD50: > 1,000 mg/kg
- Skin irritation: moderate

## 12. Ecological information

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

### Potential Toxicity:

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

Toxicity to daphnia (EC50): Daphnia: 10 - 100 mg/l

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**Persistence and degradability:** Not readily biodegradable.

## 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

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.

**IATA:** 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

**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



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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
ELINCS	None listed
NLP	None listed
AICS	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

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

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U.S. Occupational Safety and Health Administration (OSHA):	anticipated carcinogen by NTP. 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	WARNING: This product contains a chemical known to the State of California to cause birth defects or 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 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):	No components found on the Minnesota Employee Right-to-Know List of Hazardous Substances.

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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):

Water , 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate , Lithium sulphate

## 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 KIT, Part B

##### Contains:

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

##### Symbol(s):



**Signal word:** Warning

**Hazard statements:** May be corrosive to metals. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs. (Kidney.) May cause respiratory irritation.

##### Precautionary statements:

**Prevention:** Keep only in original container. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ eye protection/ face protection. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

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**Response:** Absorb spillage to prevent material damage. IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 it before reuse. IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

**Storage:** Store in corrosive resistant container with resistant inliner. Store in a well-ventilated place. Keep container tightly closed.

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

**FIRST AID:** IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Additional Components Include: Magnesium sulphate (7487-88-9) , 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-2, S-3, F-1, C-1T