

# 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

**Product code:** 4036570

**Supplier:** KODAK AUSTRALASIA Pty. Ltd., Level 2, 436 Johnston Street, Abbotsford, Victoria, 3067

For Chemical Emergency Information, in Australia call 1800 033111 (24 hour service Australia-wide); in New Zealand call 0800 734 607 (24 hour service); in Asia call +86 21 63500836

For Other Information, call 61 3 8417 8000.

**Synonyms:** PCD 6432

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

## 2. Hazards identification

**STATEMENT OF HAZARDOUS NATURE:** Hazardous according to criteria of Australian Safety and Compensation Council

**Harmful.** Harmful if swallowed. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Poisons Schedule:** 6

**Contains:** 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate

## 3. Composition/information on ingredients

Weight %	Components (CAS-No.)
25 - 30	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, remove to fresh air. Get medical attention.

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

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

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## 5. Fire-fighting measures

**Hazchem Code:** 2X

**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 (NOx), Sulphur oxides, (see also Hazardous Decomposition Products sections.)

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

## 6. Accidental release measures

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Contaminated absorbent should be disposed of in accordance with local regulations.

## 7. Handling and storage

**Personal precautions:** Do not breathe mist or vapour at concentrations greater than the exposure limits. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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

**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
Sulphur dioxide	Exposure Standards	time weighted average	2 ppm 5.2 mg/m <sup>3</sup>
		Short term exposure limit	5 ppm 13 mg/m <sup>3</sup>

**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: 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.

**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

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**Physical form:** liquid

**Colour:** yellow

**Odour:** sharp sulphur dioxide

**Specific gravity:** 1.18

**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:** 1.2

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

**Flammability Limits:** Not specified

## 10. Stability and reactivity

**Stability:** Stable under normal conditions.

**Incompatibility:** Strong oxidizing agents, Acids, Bases Contact with strong acids liberates sulphur dioxide.

**Hazardous decomposition products:** Sulphur oxides, nitrogen oxides (NOx).

**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. Some asthmatics or hypersensitive individuals may experience difficulty breathing.

**Eyes:** No specific hazard known. May cause transient irritation.

**Skin:** May cause sensitization by skin contact.

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**Ingestion:** Harmful 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 (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 (rat): 613 mg/kg

- Dermal LD50: > 1,000 mg/kg
- Skin irritation: moderate

## Data for Potassium sulphite (CAS 10117-38-1):

### Acute Toxicity Data:

Oral LD50 (rat): > 3,200 mg/kg

- Dermal LD50 (guinea pig): > 20,000 mg/kg
- Skin irritation: slight to moderate

## 12. Ecological information

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

### Potential Toxicity:

Toxicity to fish (LC50): < 1 mg/l

Toxicity to daphnia (EC50): < 1 mg/l

**Persistence and degradability:** Not 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.

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## 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.

**ADG:** 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  
Marine Pollutant status: Marine pollutant

**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  
Marine Pollutant status: Marine pollutant

**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  
Marine Pollutant status: Marine pollutant  
Marine Pollutant(s): 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate

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

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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.

**Poisons Schedule:** 6

**Australian Safety and Compensation Council:** none

## 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.
Australia National Model Regulations for the Control of Scheduled Carcinogenic Substances	No components listed

## 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. The actual label information will depend upon the intended use of the product. Australian Safety and Compensation Council labeling appears for commercial/industrial use.

### Australian Safety and Compensation Council Labeling:

**Contains:** 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate 25.98%

**pH:** 1 - 3

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**Symbol/Indication of Danger:**

Xn: Harmful

**Risk Phrases:**

R22: Harmful if swallowed.  
R43: May cause sensitization by skin contact.  
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**

S24: Avoid contact with skin.  
S37: Wear suitable gloves.

**National Health and Medical Research Council Standard for the Uniform Scheduling of Drugs and Poisons Labeling:**

**POISON**

**KEEP OUT OF REACH OF CHILDREN**

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**

**Contains:** 4-(N-ethyl-N-2-methanesulphonylaminoethyl)-2-methylphenylenediamine sesquisulphate monohydrate (306.564 g/L)

**Safety Phrases:** Avoid contact with skin or eyes. Avoid breathing dust (or) vapour (or) spray mist.

**First aid:** For advice, contact a Poisons Information Centre (Australia 13 1126; New Zealand 0800 764 766) or a doctor. Urgent hospital treatment is likely to be needed. If swallowed, do NOT induce vomiting. If in eyes, wash out immediately with water. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

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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-0