

# Material Safety Data Sheet

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

**Product name:** KODAK X-OMAT EX II Developer, Part C

**Product code:** 10075768, Part C

**Supplier:** Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608; Carestream Health Canada Company, 6 Monogram Place, Suite 200, Toronto, Ontario, M9R 0A1

MSDS Prepared by: Health, Safety and Environment, Carestream Health, Inc., Rochester, New York, 14608.

For Emergency Health Information call: 1-800-424-9300.

For Other Information, call the Marketing and Distribution Center in Your Area.

**Synonyms:** PCD 6422

**Product Use:** Professional x-ray film photographic processing solution, For industrial use only.

## 2. Hazards identification

**CONTAINS:** Diethylene glycol (111-46-6)

**WARNING!**

**MAY FORM EXPLOSIVE PEROXIDES**

**HARMFUL IF SWALLOWED**

**CAN CAUSE KIDNEY DAMAGE AND CNS EFFECTS FOLLOWING INGESTION**

**HMIS III Hazard Ratings:** Health - 1\*, Flammability - 1, Physical Hazard - 0

**NFPA Hazard Ratings:** Health - 1, Flammability - 1, Instability - 0

NOTE: HMIS III 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 III 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 percent	Components (CAS-No.)
95 - 100	Diethylene glycol (111-46-6)
0.1 - 1	1-phenyl-2-tetrazoline-5-thione (86-93-1)

## 4. First aid measures

**Inhalation:** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

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**Eyes:** Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. If easy to do, remove contact lens, if worn.

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

**Ingestion:** If swallowed, DO NOT induce vomiting. Call a physician or poison control centre 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.

**Hazardous Combustion Products:** Carbon oxides

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

## 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 prolonged or repeated breathing of mist or vapour. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash thoroughly after handling.

**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.

**Storage:** Keep container tightly closed. Protect against light. Keep away from incompatible substances (see Incompatibility section.)

## 8. Exposure controls/personal protection

**Occupational exposure controls:** Not established

**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:** None should be needed. If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. Respirator type: organic vapour/P95. If respirators are used, a program should be instituted to assure compliance with applicable

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

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

**Skin and body protection:** For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

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

## 9. Physical and Chemical Properties

**Physical form:** liquid

**Colour:** clear orange

**Odour:** slight

**Specific gravity:** 1.12

**Vapour pressure (at 92.0 °C (197.6 °F)) :** 1.3 mbar (1.0 mm Hg)

**Vapour density:** 3.66

**Volatile fraction by weight:** no data available

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

**Melting point/range:** -7.0 °C (19.4 °F)

**Water solubility:** complete

**pH:** 3.1

**Flash point:** does not flash

## 10. Stability and reactivity

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

**Incompatibility:** Strong oxidizing agents, Strong acids, Strong bases, sodium hydroxide.

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

**Hazardous Polymerization:** Hazardous polymerisation does not occur.

## 11. Toxicological information

### Effects of Exposure

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## General advice:

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

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

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

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

**Ingestion:** Harmful if swallowed.

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

### Acute Toxicity Data:

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

- Dermal LD50 (guinea pig): > 10,000 mg/kg
- Skin irritation: slight to moderate
- Eye irritation: slight

## 12. Ecological information

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

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

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

**Persistence and degradability:** Readily biodegradable.

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

**Biochemical Oxygen Demand (BOD):** 166 g/l

## 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.

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For more transportation information, go to: <http://ship.carestreamhealth.com>.

## 15. Regulatory information

### Notification status

Regulatory List	Notification status
CH INV	y (positive listing)
TSCA	y (positive listing)
DSL	y (positive listing)
AICS	y (positive listing)
ENCS (JP)	y (positive listing)
ISHL (JP)	y (positive listing)
KECI (KR)	y (positive listing)
PICCS (PH)	y (positive listing)
INV (CN)	y (positive listing)
NZIOC	

A N (Negative listing) indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Carestream Health.

**WHMIS (Canada):** Noncontrolled

### 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:	none
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:	SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the

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	threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	Diethylene glycol
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	No components are subject to the Massachusetts Right to Know Act.
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Diethylene glycol

## 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:

**CONTAINS: Diethylene glycol (111-46-6)**

**WARNING!**  
**MAY FORM EXPLOSIVE PEROXIDES**  
**HARMFUL IF SWALLOWED**  
**CAN CAUSE KIDNEY DAMAGE AND CNS EFFECTS FOLLOWING INGESTION**

Store away from heat and light.  
Do not allow to evaporate to near dryness.  
Avoid breathing mist or vapour at concentrations greater than the exposure limits.  
Avoid contact with eyes, skin, and clothing.  
Use only with adequate ventilation.  
Wash thoroughly after handling.

**FIRST AID:** If inhaled, remove to fresh air. Get medical attention if symptoms occur. Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur. If easy to do, remove contact lens, if worn. Wash off with soap and water. Get medical attention if symptoms occur. If swallowed, DO NOT induce vomiting. Call a physician or poison control centre immediately. Never give anything by mouth to an unconscious person.

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.

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**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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