

Material Safety Data Sheet

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

Product name: KODAK RP X-OMAT Developer Starter

Product code: 1332642

Supplier: 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 5607

Product Use: photographic processing chemical, For industrial use only.

2. Hazards identification

CONTAINS: Sodium bromide (7647-15-6)

WARNING!

**MAY BE HARMFUL IF SWALLOWED.
CAN CAUSE CNS EFFECTS**

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

NFPA Hazard Ratings: Health - 2, Flammability - 0, 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.) |
|----------------|----------------------------|
| 10 - 15 | Sodium bromide (7647-15-6) |

4. First aid measures

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

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.

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

Ingestion: Drink 1-2 glasses of water. Seek medical attention.

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. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: None (noncombustible), (see also Hazardous Decomposition Products section).

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Methods for cleaning up: Absorb spill with inert material, then place in a chemical waste container. 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. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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: 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.

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.

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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: 1.106

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

Vapour density: 0.6

Volatile fraction by weight: 85 - 90 %

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

Water solubility: complete

pH: 6.6

Flash point: does not flash

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents.

Hazardous decomposition products: hydrogen bromide.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Sodium bromide. Ingestion of bromide salts can cause nausea, vomiting, headache, irritability, delirium, memory loss, decreased appetite, joint pain, hallucinations, stupor, coma, and acne like rash on face, legs, and trunk.

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

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

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

Ingestion: May be harmful if swallowed.

Data for Sodium bromide (CAS 7647-15-6):

Acute Toxicity Data:

Oral LD50 (rat): 4,200 mg/kg

- Dermal LD50: > 2,000 mg/kg
- Skin irritation: No skin irritation
- Skin Sensitization (guinea pig): negative
- Eye irritation: slight

Mutagenicity/Genotoxicity Data:

- Salmonella typhimurium assay (Ames test) (TA1535, TA1537, TA1538, TA98, TA100): negative (in presence and absence of activation)
- Mutagenicity (in vitro mammalian cytogenetic test): negative (in presence and absence of activation)
- Unscheduled DNA synthesis (UDS) assay: negative (in presence and absence of activation)

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: Not readily biodegradable.

Chemical Oxygen Demand (COD): ca. 14 g/l

Biochemical Oxygen Demand (BOD): ca. 0 g/l

After dilution with a large amount of water, followed by secondary waste treatment, this material is not expected to cause adverse environmental effects.

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

Not regulated for all modes of transportation.

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

15. Regulatory information

Notification status

| Regulatory List | Notification status | Other information | Not listed |
|-----------------|----------------------|--|------------|
| EINECS | y (positive listing) | - | |
| TSCA | y (positive listing) | On TSCA Inventory | |
| AICS | y (positive listing) | - | |
| DSL | y (positive listing) | All components of this product are on the Canadian DSL list. | |
| ENCS (JP) | y (positive listing) | - | |
| KECI (KR) | y (positive listing) | - | |
| PICCS (PH) | y (positive listing) | - | |
| INV (CN) | y (positive listing) | - | |

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: | This product does not contain any |

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| | |
|---|---|
| | chemicals known to the State of California to cause cancer, birth, or any other reproductive defects. |
| US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323): | Sodium bromide, Water |
| 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): | Water, Sodium bromide |
| 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 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. |

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: Sodium bromide (7647-15-6)

WARNING!
MAY BE HARMFUL IF SWALLOWED.
CAN CAUSE CNS EFFECTS

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.

FIRST AID: If swallowed, drink 1-2 glasses of water. Seek medical attention. Never give anything by mouth to an unconscious person. Any material that contacts the eye should be washed out immediately with water. Wash off with soap and water. Get medical attention if symptoms occur.

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.

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

IN CASE OF FIRE: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

IN CASE OF SPILL: Absorb spill with inert material, then place in a chemical waste container. Clean surface thoroughly to remove residual contamination.

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.
