

Material Safety Data Sheet

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

Product name: KODAK RP X-OMAT LO Fixer and Replenisher, Part B

Product code: 5224381, Part B

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 F1650

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

2. Hazards identification

CONTAINS: Aluminium sulphate (10043-01-3)

EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING

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

NFPA Hazard Ratings: Health - 3, 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 %	Components (CAS-No.)
5 - 10	Aluminium sulphate (10043-01-3)

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Eyes: Any material that contacts the eye should be washed out immediately with water. Get medical attention if symptoms occur.

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

Ingestion: Get medical attention if symptoms occur.

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 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. Use with 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
Aluminium sulphate	ACGIH	time weighted average <i>Expressed as Al</i>	2 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: None should be needed. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn.

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

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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: colourless

Odour: odourless

Specific gravity: 1.11

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)

Water solubility: complete

pH: 3.2

Flash point: does not flash

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents. Contact with strong acids may liberate sulphur dioxide. Contact with sodium hypochlorite (bleach) may liberate hazardous materials. Contact with strong bases may liberate ammonia.

Hazardous decomposition products: Sulphur oxides, aluminum oxides.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Aluminium sulphate. Ingestion may cause nausea, vomiting, abdominal pains,

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and diarrhea.

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

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

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

Ingestion: Expected to be a low ingestion hazard.

Data for Aluminium sulphate (CAS 10043-01-3):

Acute Toxicity Data:

- Oral LD50 (rat): > 5,000 mg/kg (Information taken from reference works and the literature.)
- Skin irritation: No skin irritation
- Eye irritation: moderate

Mutagenicity/Genotoxicity Data:

- Cell transformation assay: negative

Data for 27% Aluminum Sulphate Solution:

Acute Toxicity Data:

- 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):	10 - 100 mg/l
Toxicity to algae (IC50):	1 - 10 mg/l
Toxicity to other organisms (EC50):	> 100 mg/l

Persistence and degradability: Not readily biodegradable.

Chemical Oxygen Demand (COD): < 1 g/l

Biochemical Oxygen Demand (BOD): < 1 g/l

13. Disposal considerations

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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 classified as dangerous in the meaning of transport regulations.

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

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California Prop. 65:	identified as a carcinogen or potential carcinogen by OSHA.
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:	none
US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000):	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):	No components are subject to the Massachusetts Right to Know Act.
US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323):	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5):	Aluminium sulphate, Water
	Water, Aluminium 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:

CONTAINS: Aluminium sulphate (10043-01-3)

EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING

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 symptomatic, move to fresh air. 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.

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

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

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.

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.
