

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

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

Product code: 6610133B

Pure substance/mixture Mixture

Use of the Substance/Mixture

Product Use: Photographic film.

Restrictions on use Restricted to professional users

Company/Undertaking Identification

Supplier Carestream Health Japan Co., Ltd., 2-27-1 Shinkawa, Chuo-ku, Tokyo, Japan

For further information, please contact:

For environment, health and safety information, email: WW-EHS@carestreamhealth.com

Emergency telephone

Emergency telephone +(81)-345209637

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1
Corrosive to Metals	Category 1

GHS Label elements, including precautionary statements



Hazard statements

H318 - Causes serious eye damage

H290 - May be corrosive to metals

Precautionary Statements

P234 - Keep only in original container

P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician

P390 - Absorb spillage to prevent material damage

P406 - Store in corrosive resistant stainless steel container with a resistant inliner

Other hazards which do not result in classification

General Hazards

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %
Water	75 - 80
Aluminum sulfate	20 - 25

4. FIRST AID MEASURES

Description of necessary first-aid measures

General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Main Symptoms	Causes serious eye irritation.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a physician immediately.
Skin contact	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	If swallowed, do not induce vomiting - seek medical advice.

Most important symptoms/effects, acute and delayed

Skin contact	May cause skin irritation and/or dermatitis.
Eye contact	Causes eye irritation.
Inhalation	May cause irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media

The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which shall not be used for safety reasons

None.

Specific hazards arising from the chemical

Special Hazard

Thermal decomposition can lead to release of irritating gases and vapors.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Other information

Other information

Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Avoid contact with eyes.

Advice for emergency responders

For personal protection see section 8

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and materials for containment and cleaning up

Dike far ahead of liquid spill for later disposal.

Dam up. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Other information

See Section 12 for additional Ecological information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation. Avoid contact with eyes.

Technical measures

Metal containers must be lined.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place.

Materials to Avoid None reasonably foreseeable.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits Ingredients with workplace control parameters

Appropriate engineering controls

Engineering Measures When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual protection measures, such as personal protective equipment (PPE)

Personal Protective Equipment

General Information	If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.
Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Eye Protection	Tightly fitting safety goggles.
Skin and body protection	Wear suitable protective clothing. Protective shoes or boots.
Hand Protection	Protective gloves

Hygiene measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid	Odor Odorless
ph 2.3	Color colorless
Flash point: Does not flash	Autoignition temperature: No information available
Boiling point/boiling range > 100 °C / 212 °F	
Vapor Pressure 24 hPa @ 20 °C	
Vapor density 0.6	
Density No information available	
Water Solubility No information available completely soluble	
Melting point/range: No information available	
Specific Gravity 1.298	
Bulk Density: No information available	

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

To avoid thermal decomposition, do not overheat.

Materials to Avoid

None reasonably foreseeable.

Hazardous Decomposition Products

Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity - Product Information

Skin contact	May cause skin irritation and/or dermatitis.
Eye contact	Causes eye irritation.
Inhalation	May cause irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Acute toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity
Oral	24,296.12 mg/kg
Dermal	>5000 mg/kg
Inhalation	
Gas	No information available
Mist	5 mg/L
Vapor	>20 mg/L

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90,000 mg/kg (Rat)		
Aluminum sulfate	> 5000 mg/kg (Rat)		

Chemical Name	Other applicable information
Aluminum sulfate	Severe eye irritation No skin irritation Cell transformation assay: negative Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Aggravated Medical Conditions Preexisting eye disorders, Skin disorders, Respiratory disorders.

Subchronic toxicity

Chronic toxicity

Sensitization No information available.
Neurological effects No information available.

Target Organ Effects None known.

CMR Effects

Carcinogenicity Contains no ingredient listed as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated

Acute aquatic toxicity Product Information

No information available

Acute aquatic toxicity Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Aluminum sulfate		LC50= 100 mg/L Carassius auratus 96 h LC50= 37 mg/L Gambusia affinis 96 h	EC50 = 136 mg/L 15 min (Daphnia magna)

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging Do not re-use empty containers. Dispose of in accordance with local regulations.

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.

ADR/RID

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Technical Name	ALUMINIUM SULPHATE
Hazard class	8
Packing Group	III
Classification Code	C1
ADR/RID-Labels	8
Special Provisions	274
ADR Hazard Id (Kemmler Number)	80
Limited Quantity	LQ7

IMDG/IMO

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Technical Name	Aluminium sulphate
Hazard class	8
Packing Group	III
Marine Pollutant	NP
EmS No.	F-A, S-B
Special Provisions	223, 274
Limited quantity DFDA	5 L

ICAO/IATA

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Technical Name	Aluminium sulphate
Hazard class	8
Packing Group	III
ERG Code	8L
Special Provisions	A3
Limited quantity DFDA	1 L

ADN

	Not regulated
UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Technical Name	ALUMINIUM SULPHATE
Hazard class	8
Packing Group	III
Classification Code	C1
Special Provisions	274
Limited quantity DFDA	LQ7

TDG

UN/ID No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.

Technical Name Aluminum sulfate
Hazard class 8
Packing Group III

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

15. REGULATORY INFORMATION

International Inventories

EINECS/ELINCS Complies
TSCA Complies
DSL/NDSL Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies
NZIoC Complies

Legend

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

National regulatory information

Chemical Name	Dangerous Substances	organic solvent	Harmful Substances Whose Names Are to be Indicated on the Label	Biological monitoring
Aluminum sulfate	>1 %	not applicable	not applicable	

16. OTHER INFORMATION

Revision Date 2013-10-03
Revision Note (M)SDS sections updated

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Material Safety Data Sheet