

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

Identification of the substance or mixture

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

Product code: 6610125B

Use of the Substance/Mixture

Product Use: Photographic chemical.

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

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Skin corrosion/irritation	Category 1 A
Serious eye damage/eye irritation	Category 1
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3
Corrosive to Metals	Category 1

GHS Label elements, including precautionary statements



DANGER

Hazard statements

H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H412 - Harmful to aquatic life with long lasting effects
H290 - May be corrosive to metals

Precautionary Statements

P234 - Keep only in original container
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P310 - Immediately call a POISON CENTER or doctor/ physician
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P390 - Absorb spillage to prevent material damage
P405 - Store locked up
P406 - Store in corrosive resistant container with a resistant inliner
P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards which do not result in classification

General Hazards

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %
Acetic acid	55 - 60
Water	20 - 25
Diethylene glycol	10 - 15
3-Pyrazolidinone, 1-phenyl-	5 - 10

4. FIRST AID MEASURES

Description of necessary first-aid measures

General advice	Immediate medical attention is required. Show this material safety data sheet to the doctor in attendance.
Eye contact	Immediate medical attention is required. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.
Skin contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Move to fresh air. Artificial respiration and/or oxygen may be necessary. Consult a physician.

Ingestion Immediate medical attention is required. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Rinse mouth.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Most important symptoms/effects, acute and delayed

Skin contact Causes burns.

Eye contact Causes burns.

Inhalation Irritating to respiratory system.

Ingestion Causes burns.

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

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Use CO2, dry chemical, or foam.

Extinguishing media which shall not be used for safety reasons None.

Specific hazards arising from the chemical

Special Hazard The product causes burns of eyes, skin and mucous membranes.

Special protective actions for fire-fighters

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other information

Other information Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Advice for emergency responders

For personal protection see section 8

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Try to prevent the material from entering drains or water courses.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

Other information

Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.

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 Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits Ingredients with workplace control parameters

Chemical Name	Japan	European Union	ACGIH TLV
Acetic acid	OEL 10 ppm OEL 25 mg/m ³	TWA 10 ppm TWA 25 mg/m ³	STEL 15 ppm TWA: 10 ppm

Appropriate engineering controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

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. Face-shield.

Skin and body protection

Chemical resistant apron. Antistatic boots.

Hand Protection

Impervious gloves Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion

Hygiene measures

Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid

ph < 1

Flash point: > 93.3 °C

Boiling point/boiling range 129 °C / 264.2 °F

Odor Pungent

Color orange

Autoignition temperature: No information available

Vapor Pressure 24 hPa

Vapor density No information available

Density No information available

Water Solubility completely soluble

Melting point/range: No information available

Specific Gravity 1.084

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

Exposure to air or moisture over prolonged periods.

Materials to Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity - Product Information

Skin contact Causes burns.
Eye contact Causes burns.
Inhalation Irritating to respiratory system.
Ingestion Causes burns.

Acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity
Oral 1,279.00 mg/kg
Dermal 1,771.00 mg/kg
Inhalation
Gas No information available
Mist 19.50 mg/L
Vapor No information available

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
Water	90,000 mg/kg (Rat)		
Diethylene glycol	12565 mg/kg (Rat)	11890 mg/kg (Rabbit)	
3-Pyrazolidinone, 1-phenyl-	200 mg/kg (Rat)		

Chemical Name	Other applicable information
Acetic acid	Severe eye irritation Severe skin irritation Acute overexposure to extremely high airborne concentrations of respiratory irritants has been associated with development of an asthma-like reactive airways syndrome (RADS) in susceptible individuals. Extremely high airborne concentrations are not generated during normal conditions of use but may occur following a spill. The potential to generate extremely high airborne concentrations in a spill situation depends upon physical factors such as the concentration of the solution, the volume of the spill, the surface area of the spill, the size of the room where the spill occurred, and the ventilation rate in the room.
Diethylene glycol	Mild skin irritation Mild eye irritation Can cause kidney damage and CNS effects following ingestion. Repeated oral exposure to high doses can cause liver damage.
3-Pyrazolidinone, 1-phenyl-	Mild skin irritation Mild skin irritation Repeated exposure Mild eye irritation Did not cause sensitization on laboratory animals. guinea pig Based on repeated-dose ingestion studies in animals, this chemical may cause blood, testicular, and adverse reproductive effects.
1H-Indazole, 5-nitro-	Mild skin irritation Repeated exposure Did not cause sensitization on laboratory animals. Mild eye irritation

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

Chronic toxicity
Chronic toxicity

Chronic exposure to corrosive fumes/gases may cause erosion of the teeth followed by jaw necrosis. Bronchial irritation with chronic cough and frequent attacks of pneumonia are common. Gastrointestinal disturbances may also be seen Avoid repeated exposure
Possible risks of irreversible effects
May cause sensitization of susceptible persons.
No information available.
Respiratory system, Eyes, Skin, Teeth.

Sensitization
Neurological effects
Target Organ Effects

CMR Effects

Carcinogenicity Contains no ingredient listed as a carcinogen.

Reproductive toxicity Contains a known or suspected reproductive toxin

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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
Acetic acid		LC50= 79 mg/L Pimephales promelas 96 h LC50= 75 mg/L Lepomis macrochirus 96 h	EC50 = 47 mg/L 24 h (Daphnia magna) EC50 = 65 mg/L 48 h (Daphnia magna)
Diethylene glycol		LC50= 75200 mg/L Pimephales promelas 96 h	EC50 = 84000 mg/L 48 h (Daphnia magna)

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Chemical Name	log Pow
Acetic acid	-0.31
Diethylene glycol	-1.98

Mobility in soil

No information available

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Dispose of in accordance with local 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	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II
Classification Code	C3
ADR/RID-Labels	8
ADR Hazard Id (Kemmler Number)	80
Limited Quantity	LQ22

IMDG/IMO

UN/ID No	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II
Marine Pollutant	NP
EmS No.	F-A, S-B
Limited quantity DFDA	1 L

ICAO/IATA

UN/ID No	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II
ERG Code	8L
Limited quantity DFDA	0.5 L

ADN

UN/ID No	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II
Classification Code	C3
Limited quantity DFDA	LQ22

TDG

UN/ID No	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II

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

Industrial Safety and Health Law:

Chemical Name	Dangerous Substances	organic solvent	Harmful Substances Whose Names Are to be Indicated on the Label	Biological monitoring
Acetic acid	Flammable substance >0.1 %	not applicable	not applicable	

Fire Service Law:

Chemical Name	Restrictions on use	Threshold limits
Acetic acid - 64-19-7	4	
Diethylene glycol - 111-46-6	4	

16. OTHER INFORMATION

Revision Date 2013-10-04
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