Carestream

SAFETY DATA SHEET

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
Product code: 6610000B
Pure substance/mixture Mixture

Use of the Substance/Mixture

Product Use: Photographic chemical, Restricted to professional users.

Company/Undertaking Identification

Supplier: Carestream Health Taiwan Limited, 4F-1, No. 129, Sec.2, Zhongshan N. Rd., Zhongshan Dist., Taipei, 10448,Taiwan R.O.C.

Manufacturer: Kodak (Wuxi) Company Ltd,
No. 18, Changjiang Road,
Wuxi, JiangSu Province,
China 214028

For further information, please contact:
E-mail Address - For environment, health and safety information, email: WW-EHS@carestreamhealth.com

Emergency telephone

00801-14-8954

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral	Category 5
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3
Corrosive to metals	Category 1

GHS Label elements, including precautionary statements

Danger

hazard statements
H303 - May be harmful if swallowed
H312 - Harmful in contact with skin
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects
H373 - May cause damage to organs through prolonged or repeated exposure
H290 - May be corrosive to metals

Precautionary Statements
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
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
P272 - Contaminated work clothing should not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P312 - Call a POISON CENTER or doctor if you feel unwell
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
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
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P390 - Absorb spillage to prevent material damage
P404 - Store in a closed container
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

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %
Acetic acid	60-70
Water	20 - 25
3-Pyrazolidinone, 1-phenyl-	10-15

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.

Main Symptoms — Causes severe skin burns and eye damage
Difficulty breathing
Coughing and/ or wheezing

Eye contact	Immediate medical attention is required. Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If easy to do, remove contact lens, if worn.
Skin contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation	Immediate medical attention is required. Move to fresh air. Artificial respiration and/or oxygen may be necessary.
Ingestion	Immediate medical attention is required. Do NOT induce vomiting. Drink plenty 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. Corrosive to the eyes and may cause severe damage including blindness.
Inhalation	May be harmful by inhalation. Irritating to mucous membranes. Irritating to respiratory system.
Ingestion	Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

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

Notes to physician	Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically.

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	The product causes burns of eyes, skin and mucous membranes. 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	None known.

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 or walk through spilled material. Ensure adequate ventilation. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing.

Advice for emergency responders
For personal protection see section 8

Environmental precautions

Do not flush into surface water or sanitary sewer system. Try to prevent the material from entering drains or water courses. Do not allow material to contaminate ground water system.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.
Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly.

Other information

Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling — Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. When using, do not eat, drink or smoke. Wash thoroughly after handling. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions — Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 5°C and 30°C.

Materials to Avoid — Strong oxidizing agents. Bases. Amines. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Chemical Name	Taiwan	China	ACGIH TLV	European Union
Acetic acid	STEL 15 ppm STEL 37.5 mg/m³	TWA 10 mg/m³ STEL 20 mg/m³	STEL 15 ppm TWA: 10 ppm	TWA 10 ppm TWA 25 mg/m³

Advisory OEL — 1-phenyl-3-pyrazolidone (CAS 92-43-3): TWA 0.2 mg/m³

Appropriate engineering controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. 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 In case of insufficient ventilation wear suitable respiratory equipment. 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 Impervious clothing. Boots. Chemical resistant apron.

Hand Protection Impervious gloves

Hygiene measures When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid
ph 0.6
Flash point: > 93.4 °C
Boiling point/boiling range No information available

Odor Pungent
Color orange
Autoignition temperature: No information available

Vapor Pressure No information available
Vapor density No information available
Density 1.083 g/cm3
Water Solubility completely soluble
Melting point/range: No information available
Specific Gravity No information available
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. Heat, flames and sparks.

Materials to Avoid

Strong oxidizing agents. Bases. Amines. Metals.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides. Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Acute toxicity Product Information.

Skin contact Causes burns.
Eye contact Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
Inhalation May be harmful by inhalation. Irritating to mucous membranes. Irritating to respiratory system.
Ingestion Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity
Oral 2110 mg/kg
Dermal 1416 mg/kg
Inhalation
Gas No information available
Mist 15.21 mg/L
Vapor No information available

Acute toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h Inhalation LC50 Rat 11.4 mg/L 4 h (Source: NLM_CIP)
Water	90,000 mg/kg (Rat)		
3-Pyrazolidinone, 1-phenyl-	475 mg/kg (Rat)	>1,000 mg/kg	

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 occured, and the ventilation rate in the room.

3-Pyrazolidinone, 1-phenyl-	Mild skin irritation 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. May cause allergic skin reaction based on human experience.

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

Subchronic toxicity

no data available

Chronic toxicity

Chronic toxicity Avoid repeated exposure. Possible risks of irreversible effects. 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. Contains a known or suspected reproductive toxin.

Sensitization May cause sensitization of susceptible persons.

Neurological effects No information available.

Target Organ Effects Respiratory system, Eyes, Skin, Teeth, Blood, Testes.

CMR Effects

Carcinogenicity Contains no ingredient listed as a carcinogen.

Reproductive toxicity Contains ingredients that are suspected reproductive hazards.

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		75: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Pimephales promelas mg/L LC50 static	65: 48 h Daphnia magna mg/L EC50 Static
3-Pyrazolidinone, 1-phenyl-		10-100 mg/l	10-100 mg/l

Persistence and degradability

No information available

Degradation						
Type:	Method	Compartment	Sampling time	Units	Result	Units
Chemical Oxygen Demand (COD)					~ 1162	g/l
Biochemical Oxygen Demand (BOD)					~ 644	g/l

Bioaccumulative potential

No information available

Chemical Name	log Pow
Acetic acid	-0.31

Mobility in soil
No information available

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Dispose of in accordance with local regulations.

Contaminated packaging 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

16. OTHER INFORMATION

Revision Date	2014-04-08
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 Safety Data Sheet