

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

### Identification of the substance or mixture

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

**Product code:** 8705584B

### Use of the Substance/Mixture

Photographic chemical, Restricted to professional users.  
Restricted to professional users.

### Company/Undertaking Identification

**Supplier** CARESTREAM DO BRASIL COMÉRCIO E SERVIÇOS DE PRODUTOS MÉDICOS LTDA  
Rua Dr. Pedro Luiz de Oliveira Costa, 60 - Limoeiro  
São José dos Campos - SP - Brasil  
CEP: 12241-420

### For further information, please contact:

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

For other information contact:

0800 891 7554  
891 7555

### Emergency telephone

CHEMTREC Brazil: +(55)-2139581449

## 2. HAZARDS IDENTIFICATION

### Classification According to Standard ABNT NBR 1475:2012

### 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
Flammable liquids	Category 3

### 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  
H412 - Harmful to aquatic life with long lasting effects  
H226 - Flammable liquid and vapor

### **Precautionary Statements**

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
P233 - Keep container tightly closed  
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
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  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
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  
P403 + P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant

### **Other hazards which do not result in classification**

None known.

### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

The substance/preparation is classified as dangerous in accordance with Directive(s) 67/548/EEC with amendments and/or 1999/45/EC with amendments

#### **Symbol(s)**

C - Corrosive

#### **R-code(s)**

R10 - C; R34 - R52-53

### **Label Elements**

#### **Symbol(s)**

C - Corrosive.



C - Corrosive

Contains Acetic acid

**R - phrase(s)**

Flammable

Causes burns

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

**S-phrase(s)**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets

S16 - Keep away from sources of ignition - No smoking

S33 - Take precautionary measures against static discharges

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

S 7/9 - Keep container tightly closed and in a well-ventilated place

**Classification According to US OSHA 1910.1200 (HazCom 1994)**

DANGER!

COMBUSTIBLE LIQUID AND VAPOR

Corrosive

The product causes burns of eyes, skin and mucous membranes

Harmful if swallowed

Harmful in contact with skin

Harmful by inhalation

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Weight %
Acetic acid	80-90
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**

Corrosive  
Burning  
Coughing and/ or wheezing  
Difficulty breathing, respiratory distress

**Eye contact**

Immediate medical attention is required. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

**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.

**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** Corrosive to respiratory system.

**Ingestion** Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach.

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** Water spray. Carbon dioxide (CO<sub>2</sub>). Alcohol-resistant foam. Dry chemical.

**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. In the event of fire and/or explosion do not breathe fumes.

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

Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

### **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. Local authorities should be advised if significant spillages cannot be contained.

### **Methods and materials for containment and cleaning up**

Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills. 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. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Wear personal protective equipment. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Keep container tightly closed.

#### **Prevention of fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition

### **Conditions for safe storage, including any incompatibilities**

#### **Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

#### **Materials to Avoid**

Bases. Amines. Metals. Strong oxidizing agents.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

#### **Exposure limits**

Chemical Name	ACGIH TLV	Argentina	Brazil	Chile	Venezuela
Acetic acid	STEL 15 ppm TWA: 10 ppm	TWA: 10 ppm STEL: 15 ppm	TWA: 8 ppm TWA: 20 mg/m <sup>3</sup>	TWA: 8 ppm TWA: 20 mg/m <sup>3</sup> STEL: 15 ppm STEL: 37 mg/m <sup>3</sup>	TWA: 10 ppm STEL: 15 ppm

### **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. 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. Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

#### **Respiratory protection**

Tightly fitting safety goggles Face-shield

#### **Eye Protection**

#### **Skin and body protection**

Impervious gloves. Impervious clothing.

#### **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**

Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state** liquid

**ph** < 1

**Flash point:** 38.0 - 61 °C (Estimated)

**Boiling point/boiling range** > 100 °C

**Odor** Strong Acetic

**Color** clear orange

**Autoignition temperature:** No information available

**Vapor Pressure** 24 mbar @ 20 °C

**Vapor density** 0.6

**Density** No information available

**Water Solubility** completely soluble

**Melting point/range:** No information available

**Specific Gravity** 1.074

**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

Keep away from open flames, hot surfaces and sources of ignition.

### Materials to Avoid

Bases. Amines. Metals. Strong oxidizing agents.

## Hazardous Decomposition Products

None under normal use. Thermal decomposition can lead to release of irritating gases and vapors. Nitrogen oxides (NOx). Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity - Product Information

<b>Skin contact</b>	Causes burns.
<b>Eye contact</b>	Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
<b>Inhalation</b>	Corrosive to respiratory system.
<b>Ingestion</b>	Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach.

### 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
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.		
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.		

**Aggravated Medical Conditions** Preexisting eye disorders, Skin disorders, Respiratory disorders, Blood disorders, Overexposure may cause female and male reproductive disorder(s).

### 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**

No information available.

##### **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		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)

##### **Persistence and degradability**

Expected to be readily biodegradable

##### **Bioaccumulative potential**

No information available

Chemical Name	log Pow
Acetic acid	-0.31

##### **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

<b>UN/ID No</b>	UN2789
<b>Proper Shipping Name</b>	Acetic acid, solution
<b>Hazard class</b>	8
<b>Packing Group</b>	II
<b>Classification Code</b>	CF1
<b>ADR/RID-Labels</b>	8 + 3
<b>ADR Hazard Id (Kemmler Number)</b>	83
<b>Limited Quantity</b>	LQ22

### IMDG/IMO

<b>UN/ID No</b>	UN2789
<b>Proper Shipping Name</b>	Acetic acid, solution
<b>Hazard class</b>	8
<b>Subsidiary hazard class</b>	3
<b>Packing Group</b>	II
<b>Marine Pollutant</b>	NP
<b>EmS No.</b>	F-E, S-C
<b>Limited quantity DFDA</b>	1 L

### ICAO/IATA

	Transport forbidden
<b>UN/ID No</b>	UN2789
<b>Proper Shipping Name</b>	Acetic acid solution
<b>Hazard class</b>	8
<b>Subsidiary hazard class</b>	3
<b>Packing Group</b>	II
<b>Limited quantity DFDA</b>	0.5 L

### ADN

<b>UN/ID No</b>	UN2789
<b>Proper Shipping Name</b>	Acetic acid, solution
<b>Hazard class</b>	8
<b>Packing Group</b>	II
<b>Classification Code</b>	CF1
<b>Hazard Labels</b>	3
<b>Limited quantity DFDA</b>	LQ22
<b>Ventilation</b>	VE01

### TDG

<b>UN/ID No</b>	UN2789
<b>Proper Shipping Name</b>	Acetic acid solution
<b>Hazard class</b>	8
<b>Subsidiary Class</b>	3
<b>Packing Group</b>	II

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

## 15. REGULATORY INFORMATION

### International Inventories

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

### International Regulations

**Mexico - Grade** Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
Acetic acid		Mexico: TWA 10 ppm Mexico: TWA 25 mg/m <sup>3</sup> Mexico: STEL 15 ppm Mexico: STEL 37 mg/m <sup>3</sup>

Component	Argentina - Chemical Precursors and Regulated Essential Chemicals
Acetic acid 64-19-7 ( 80-90 )	Present

## 16. OTHER INFORMATION

Revision Date 2013-11-19  
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**