

MATERIAL SAFETY DATA SHEET.

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Issuing date 2011-09-21

Revision Date 2011-09-21

Version 2

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

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

Product code: 1249259A

Supplier Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608.

For Emergency Health Information call: 800-424-9300.

For other information contact: 800-328-2910.

Synonyms PCD 6159.

Product Use: Restricted to professional users. Photographic chemical.

2. HAZARDS IDENTIFICATION

Warning!.

Emergency Overview

Harmful if swallowed

Causes eye irritation

May cause central nervous system depression

May cause adverse kidney effects

Contains a known or suspected reproductive toxin

Physical state liquid.

Odor Odorless.

Color light yellow.

HMIS

Health Hazard - 2*

Flammability - 1

**Physical - 0
Hazard**

Potential Health Effects

Eyes

Irritating to eyes. Risk of serious damage to eyes.

Skin

Repeated exposure may cause skin dryness or cracking. Non-irritating during normal use.

Inhalation

No hazard from product as supplied. May cause irritation of respiratory tract. Contact with strong acids liberates sulfur dioxide.

Ingestion

Harmful if swallowed. May cause adverse kidney effects. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Chronic Effects

Chronic toxicity

Effects expected to be similar to those seen acutely. Contains a known or suspected reproductive toxin.

Aggravated Medical Conditions

Central nervous system. Preexisting eye disorders. Skin disorders. Respiratory disorders. Use of alcoholic beverages may enhance toxic effects.

Environmental hazard

See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Chemical Name	CAS-No	Weight %
Potassium sulfite	10117-38-1	20 - 25
Hydroquinone	123-31-9	5 - 10
Diethylene glycol	111-46-6	1 - 5
Potassium hydroxide	1310-58-3	1-5
Sodium sulfite	7757-83-7	1-5
Sodium carbonate	497-19-8	1 - 5
Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-, pentasodium salt	140-01-2	0.1 - 1
Sodium borate	1330-43-4	0.1-1

Non-Hazardous

Chemical Name	CAS-No	Weight %
Water	7732-18-5	60-70
Sodium bicarbonate	144-55-8	1 - 5

4. FIRST AID MEASURES

General advice	Show this material safety data sheet to the doctor in attendance.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Move to fresh air. Get medical attention immediately if symptoms occur.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.
Notes to physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point:	. >. 93.3 °C. / . >. 200 °F.
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Alcohol-resistant foam. Dry chemical.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Hazardous decomposition products due to incomplete combustion.

Specific hazards arising from the chemical

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

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health Hazard - 2

Flammability - 1

Stability - 0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	For personal protection see section 8. Ensure adequate ventilation.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.
Other information	See Section 12 for additional information.

7. HANDLING AND STORAGE

Advice on safe handling	Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wash thoroughly after handling.
Technical measures/Storage conditions	Keep at temperatures between 5°C and 30°C. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs	OSHA PEL	Advisory OEL
Hydroquinone 123-31-9	TWA: 1 mg/m ³		TWA: 2 mg/m ³	
Diethylene glycol 111-46-6		TWA: 10 mg/m ³		
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m ³			
Sodium borate 1330-43-4	STEL 6 mg/m ³ TWA: 2 mg/m ³			

Occupational Exposure Controls

Engineering Measures	Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation.
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Personal Protective Equipment

General Information	These recommendations apply to the product as supplied.
Respiratory protection	Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
Eye/Face Protection	Safety glasses with side-shields. If splashes are likely to occur, wear:: Goggles.

Skin and body protection Wear suitable protective clothing.

Hand Protection Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Chemical resistant, impermeable gloves.

In case of full contact:			
Glove material	Glove thickness	Break through time	Remarks
Nitrile rubber.	>=0.38 mm	>480 min	
Neoprene.	>=0.65 mm	>240 min	
butyl-rubber.	>=0.36 mm	>480 min	

Other Protective Equipment Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid.

ph . 11.4

Flash point: . >. 93.3 °C. / . >. 200 °F.

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

Odor Odorless.

Color light yellow.

Autoignition temperature: No information available.

Vapor Pressure . 24 mbar @ 20 °C. @ 20 °C .

Vapor density . 0.6

Density No information available.

Volatile organic compounds (VOC) content 60 - 65 %.

Water Solubility . completely soluble.

Melting point/range: No information available.

Specific Gravity . 1.31

Bulk Density: No information available.

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions.

Incompatible products Oxidizing agents. Strong acids.

Conditions to Avoid Heat, flames and sparks.

Hazardous Decomposition Products Carbon oxides, Sulfur oxides.

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Contact with strong acids liberates sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity Product Information.

Skin Repeated exposure may cause skin dryness or cracking. Non-irritating during normal use.

Eyes Irritating to eyes. Risk of serious damage to eyes.

Inhalation	No hazard from product as supplied. May cause irritation of respiratory tract. Contact with strong acids liberates sulfur dioxide.
Ingestion	Harmful if swallowed. May cause adverse kidney effects. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Acute toxicity Component Information.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90 mL/kg (Rat)		
Hydroquinone	320 mg/kg (Rat)	> 4800 mg/kg (Rat)	
Diethylene glycol	12565 mg/kg (Rat)	11890 mg/kg (Rabbit)	
Potassium hydroxide	214 mg/kg (Rat)		
Sodium sulfite	820 mg/kg (Rat)		22 mg/L (Rat) 1 h 5.5 mg/L (Rat) 4 h
Sodium bicarbonate	4220 mg/kg (Rat)		
Sodium carbonate	4090 mg/kg (Rat)		
Sodium borate	2403 mg/kg (Rat)	2000 mg/kg (Rabbit)	

Chemical Name	Other applicable information
Potassium sulfite	Mild skin irritation - Moderate skin irritation
Hydroquinone	Moderate eye irritation Causes sensitization on guinea-pigs Mild skin irritation Can be absorbed through skin (1.1 ug/cm2/hr) Negative in bacterial mutagenicity assays. Evidence for mutagenicity (chromosome breakage, sister-chromatid exchanges) in in vivo and in vitro animal studies Hydroquinone has been classified as a Category 3 mutagen and carcinogen by the European Union based on testing of rats and mice given hydroquinone by stomach tube or at high dietary levels. The International Agency for Research on Cancer (IARC) under ranking for cancer potential has classified hydroquinone in Group 3, i.e. "not classifiable" as a carcinogen. In the European Union a Category 3 mutagen attracts the risk phrase R68 "Possible risk of irreversible effects" at concentrations above 1%, and a Category 3 carcinogen attracts the risk phrase R40 "Limited evidence of a carcinogenic effect" at concentrations above 1%. Exposure to products containing such substances should be controlled to below established control limits and special care should be taken with pregnant or breast-feeding women to ensure appropriate controls are in place to control the risk

Diethylene glycol	Mild skin irritation - Moderate skin irritation Mild eye irritation Can cause kidney damage and CNS effects following ingestion. Repeated oral exposure to high doses can cause liver damage
Potassium hydroxide	Severe skin irritation
Sodium sulfite	No skin irritation Mild eye irritation
Sodium carbonate	Mild skin irritation
Sodium borate	Based on repeated-dose ingestion studies in animals, may cause adverse reproductive and developmental effects. However, the doses administered were many times those to which humans would normally be exposed.

Subchronic toxicity No information available.

Chronic toxicity Effects expected to be similar to those seen acutely. Contains a known or suspected reproductive toxin.

Carcinogenicity Contains a known or suspected carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydroquinone	A3			

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

Sensitization This mixture contains hydroquinone which is classified as a dermal sensitizer in some jurisdictions. The mixture was negative in dermal sensitization studies with and without prior sensitization to hydroquinone. Based on the results of these studies, this mixture is not expected to present a dermal sensitization hazard to humans.

mutagenic effects No specific testing was done on this product. Mutagenic testing of the hazardous ingredient in this product has resulted in some positive mutagenic results.

Reproductive toxicity Contains ingredients that are suspected reproductive hazards.

Target Organ Effects Skin, Eyes, Respiratory system, Central nervous system, Kidney, Liver.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects Harmful to aquatic organisms.

Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Potassium sulfite		LC50 220 - 460 mg/L <i>Leuciscus idus</i> 96 h	
Hydroquinone	13.5 mg/L EC50 120 h (<i>Desmodesmus subspicatus</i>) 0.335 mg/L EC50 72 h (<i>Pseudokirchneriella subcapitata</i>)	LC50= 0.044 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50= 0.044 mg/L <i>Pimephales promelas</i> 96 h LC50 0.1 - 0.18 mg/L <i>Pimephales promelas</i> 96 h LC50= 0.17 mg/L <i>Brachydanio rerio</i> 96 h	EC50 = 0.29 mg/L 48 h (<i>Daphnia magna</i>)
Diethylene glycol		LC50= 75200 mg/L <i>Pimephales promelas</i> 96 h	EC50 = 84000 mg/L 48 h (<i>Daphnia magna</i>)
Potassium hydroxide		LC50= 80 mg/L <i>Gambusia affinis</i> 96 h	
Sodium sulfite		LC50 220 - 460 mg/L <i>Leuciscus idus</i> 96 h	LC50 = 330 mg/L 24 h (<i>Psammecinus miliaris</i>)
Sodium bicarbonate	650 mg/L EC50 120 h (<i>Nitzschia linearis</i>)	LC50 8250 - 9000 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 = 2350 mg/L 48 h (<i>Daphnia magna</i>)
Sodium carbonate	242 mg/L EC50 120 h (<i>Nitzschia</i>)	LC50= 300 mg/L <i>Lepomis macrochirus</i> 96 h LC50 310 - 1220 mg/L <i>Pimephales promelas</i> 96 h	EC50 = 265 mg/L 48 h (<i>Daphnia magna</i>)
Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-, pentasodium salt	2.6 mg/L EC50 72 h (<i>Desmodesmus subspicatus</i>)	LC50> 300 mg/L <i>Pimephales promelas</i> 96 h LC50 1005 - 1250 mg/L <i>Lepomis macrochirus</i> 96 h	EC50 > 500 mg/L 48 h (<i>Daphnia magna</i>)
Sodium borate	158 mg/L EC50 96 h (<i>Desmodesmus subspicatus</i>) 2.6 - 21.8 mg/L EC50 96 h (<i>Pseudokirchneriella subcapitata</i>)	LC50= 340 mg/L <i>Limanda limanda</i> 96 h	LC50 1085 - 1402 mg/L 48 h (<i>Daphnia magna</i>)

Persistence and degradability No data is available on the product itself. Expected to be readily biodegradable.

Bioaccumulation: No information available.

Mobility No information available.

Chemical Name	log Pow
Hydroquinone	0.5
Diethylene glycol	-1.98
Potassium hydroxide	0.65 0.83
Sodium sulfite	-4
Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-, pentasodium salt	-3.05

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Should not be released into the environment. 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.

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DOT Not regulated.

TDG Not regulated.

ICAO/IATA Not regulated.

IMDG/IMO Not regulated.

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

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	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.

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	SARA 313 - Threshold Values %
Hydroquinone - 123-31-9	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes.
Chronic Health Hazard	Yes.
Fire Hazard	No.
Sudden Release of Pressure Hazard	No.
Reactive Hazard	No.

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Potassium hydroxide	1000 lb			X

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act.

Chemical Name	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Hydroquinone - 123-31-9		Group I		
Diethylene glycol - 111-46-6		Group I		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA Product RQ
Hydroquinone	100 lb	100 lb	
Potassium hydroxide	1000 lb		

TSCA

Chemical Name	U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping
Water	Partially exempt chemical substance termed Petroleum Process Stream

Chemical Name	U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances
Hydroquinone	10/04/1984

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Hydroquinone	X	X	X	X	X
Potassium hydroxide	X	X	X		X

International Regulations

Mexico - Grade

Moderate risk, Grade 2.

Chemical Name	Carcinogen Status	Exposure Limits
Hydroquinone	A3	Mexico: TWA 2 mg/m ³
Sodium borate		Mexico: TWA 1 mg/m ³

16. OTHER INFORMATION

Disclaimer for Label

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.



Warning!

Contains:

Hazardous Components

Chemical Name	CAS-No	Weight %
Potassium sulfite	10117-38-1	20 - 25
Hydroquinone	123-31-9	5 - 10
Diethylene glycol	111-46-6	1 - 5
Potassium hydroxide	1310-58-3	1-5
Sodium sulfite	7757-83-7	1-5
Sodium carbonate	497-19-8	1 - 5
Glycine, N,N-bis[2-[bis(carboxymethyl)amino]ethyl]-, pentasodium salt	140-01-2	0.1 - 1
Sodium borate	1330-43-4	0.1-1

Harmful if swallowed. Causes eye irritation. May cause central nervous system depression. May cause adverse kidney effects. Contains a known or suspected reproductive toxin.

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

Additional information is given in the Material Safety Data Sheet.

Disclaimer

The information provided on this SDS 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.

MATERIAL SAFETY DATA SHEET

Issuing date 2012-12-03

Revision Date 2012-12-03

Version 3

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

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

Product code: 1249259B

Supplier Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608

For Emergency Health Information call: 800-424-9300

For other information contact: 800-328-2910

Product Use: Photographic chemical.

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Corrosive

The product causes burns of eyes, skin and mucous membranes
May be harmful if swallowed, inhaled, or absorbed through skin
Contains a known or suspected reproductive toxin

Physical state liquid

Odor Pungent

Color orange

HMIS

Health Hazard - 3*

Flammability - 1

**Physical - 0
Hazard**

Potential Health Effects

Eyes

Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
Risk of serious damage to eyes.

Skin

Causes burns.

Inhalation

May be harmful if inhaled. Irritating to mucous membranes. May cause irritation of respiratory tract.

Ingestion

May be harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach.

Chronic Effects

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.

Aggravated Medical Conditions

Preexisting eye disorders. Skin disorders. Respiratory disorders.

Environmental hazard

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Chemical Name	CAS-No	Weight %
Acetic acid	64-19-7	60-70
3-Pyrazolidinone, 1-phenyl-	92-43-3	10-15

Non-Hazardous

Chemical Name	CAS-No	Weight %
Water	7732-18-5	20 - 25

4. 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. 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.
Notes to physician	Probable mucosal damage may contraindicate the use of gastric lavage. Treat symptomatically.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flash point:	> 93.4 °C
Suitable Extinguishing Media	The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Hazardous decomposition products due to incomplete combustion: Carbon oxides, Hydrocarbons, Aldehydes.

Specific hazards arising from the chemical

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.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health Hazard - 3

Flammability - 1

Stability - 0

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	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.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	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

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.
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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs	OSHA PEL	Advisory OEL
Acetic acid 64-19-7	STEL 15 ppm TWA: 10 ppm		TWA: 10 ppm TWA: 25 mg/m ³	

Occupational Exposure 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.
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Personal Protective Equipment

General Information	These recommendations apply to the product as supplied.
Respiratory protection	Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin and body protection	Impervious clothing.
Hand Protection	Impervious gloves.

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

Stability Stable under normal conditions.
Incompatible products Amines. Metals. Bases. Strong oxidizing agents.
Conditions to Avoid Exposure to air or moisture over prolonged periods. Heat, flames and sparks.
Hazardous Decomposition Products Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides. Nitrogen oxides (NOx).
Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity - Product Information

Skin Causes burns.
Eyes Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Risk of serious damage to eyes.
Inhalation May be harmful if inhaled. Irritating to mucous membranes. May cause irritation of respiratory tract.
Ingestion May be 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
Water	90,000 mg/kg (Rat)		
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.

Subchronic toxicity No information available

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.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Sensitization May cause sensitization of susceptible persons.

Reproductive toxicity Contains ingredients that are suspected reproductive hazards.

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

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

Bioaccumulation: - No information available

Mobility - No information available

Chemical Name	log Pow
Acetic acid	-0.31

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Should not be released into the environment. Dispose of in accordance with local regulations.

Contaminated packaging Do not re-use empty containers. Empty containers may contain flammable or explosive vapours. Do not burn, or use a cutting torch on, the empty drum. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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.

DOT

UN/ID No	UN2790
Proper Shipping Name	Acetic acid solution
Hazard class	8
Packing Group	II
Special Provisions	A3, A6, A7, A10, B2, IB2, T7, TP2
Emergency Response Guide Number	153

TDG

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

ICAO/IATA

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

IMDG/IMO

UN/ID No	UN2790
Proper Shipping Name	Acetic acid, solution
Hazard class	8
Packing Group	II
EmS No.	F-A, S-B

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

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	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

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic acid	5000 lb			X

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

Chemical Name	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Acetic acid - 64-19-7		Group II		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA Product RQ
Acetic acid	5000 lb		

TSCA

This product does not contain any chemicals regulated under TSCA Section 4, Section 5(a), Section 8(a) or Section 8(d).

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acetic acid	X	X	X		X

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 ³ Mexico: STEL 15 ppm Mexico: STEL 37 mg/m ³

16. OTHER INFORMATION

Disclaimer for Label

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.

DANGER!

- Contains:

Hazardous Components

Chemical Name	CAS-No	Weight %
Acetic acid	64-19-7	60-70
3-Pyrazolidinone, 1-phenyl-	92-43-3	10-15

Corrosive. The product causes burns of eyes, skin and mucous membranes. May be harmful if swallowed, inhaled, or absorbed through skin.
Contains a known or suspected reproductive toxin.

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

Additional information is given in the Material Safety Data Sheet.

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

MATERIAL SAFETY DATA SHEET.

Page 1 / 9.

Issuing date 2011-09-21

Revision Date 2011-09-21

Version 2

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

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

Product code: 1249259C

Supplier Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608.

For Emergency Health Information call: 800-424-9300.

For other information contact: 800-328-2910.

Product Use: Photographic chemical.

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Corrosive

The product causes burns of eyes, skin and mucous membranes

Irritating to respiratory system

Harmful if swallowed

May be harmful if inhaled

May be harmful if absorbed through skin

May cause sensitization by skin contact

Physical state liquid.

Odor Aldehydes.

Color yellow - green.

HMIS

Health Hazard - 3

Flammability - 1

**Physical - 1
Hazard**

Potential Health Effects

Eyes

Causes burns. Corrosive to the eyes and may cause severe damage including blindness.

Skin

Causes burns. May be harmful in contact with skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation

May be harmful if inhaled. Irritating to respiratory system.

Ingestion

Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

Chronic Effects

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.

Aggravated Medical Conditions

Allergies. Skin disorders. Respiratory disorders. Preexisting eye disorders.

Environmental hazard Very toxic to aquatic organisms. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Chemical Name	CAS-No	Weight %
Glutaraldehyde	111-30-8	40-50
Acetic acid	64-19-7	5-10
1H-Indazole, 5-nitro-	5401-94-5	1-5

Non-Hazardous

Chemical Name	CAS-No	Weight %
Water	7732-18-5	40-50

4. 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. 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	Move to fresh air. Oxygen or artificial respiration if needed. Seek immediate medical attention/advice.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required.
Notes to physician	May cause sensitization of susceptible persons. Treat symptomatically.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

5. FIRE-FIGHTING MEASURES

Flash point:	> 93.600 °C.
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Hazardous decomposition products due to incomplete combustion.

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. May form peroxides of unknown stability. May cause spontaneous heating and ignition when absorbed on combustible, porous material (e.g. rags, paper, sawdust, cotton, clothing).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health Hazard - 3

Flammability - 1

Stability - 1

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. For personal protection see section 8. Ensure adequate ventilation. Do not touch or walk through spilled material.
Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	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. Prevent product from entering drains.
Other information	Refer to protective measures listed in Sections 7 and 8.

7. HANDLING AND STORAGE

Advice on safe handling	Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Wear personal protective equipment. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
Technical measures/Storage conditions	Keep away from direct sunlight. Keep away from heat and sources of ignition. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep at temperatures between 5°C and 30°C. Do not allow evaporation to dryness.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs	OSHA PEL	Advisory OEL
Glutaraldehyde 111-30-8	Ceiling: 0.05 ppm			
Acetic acid 64-19-7	STEL 15 ppm TWA: 10 ppm		TWA: 10 ppm TWA: 25 mg/m ³	

Occupational Exposure 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.
Personal Protective Equipment	
General Information	These recommendations apply to the product as supplied.
Respiratory protection	Use only with adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
Eye/Face Protection	Tightly fitting safety goggles. Face-shield.
Skin and body protection	Impervious clothing.

Hand Protection Impervious gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid.	Odor Aldehydes.
ph . 2.3	Color yellow - green.
Flash point: . >. 93.600 °C.	Autoignition temperature: No information available.
Boiling point/boiling range . >. 100 °C.	
Vapor Pressure . 24 mbar @ 20 °C.	
Vapor density . 1.8	
Density . 1.124 g/cm3.	
Volatile organic compounds (VOC) content 40 - 45 %.	
Water Solubility . completely soluble.	
Melting point/range: No information available.	
Specific Gravity No information available.	
Bulk Density: No information available.	

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions. May form explosive peroxides.
Incompatible products	Bases. Strong oxidizing agents. Metals.
Conditions to Avoid	Exposure to air or moisture over prolonged periods. Do not allow evaporation to dryness.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides. Nitrogen oxides (NOx). Aldehydes.
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	May form explosive peroxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity Product Information.

Skin	Causes burns. May be harmful in contact with skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Eyes	Causes burns. Corrosive to the eyes and may cause severe damage including blindness.
Inhalation	May be harmful if inhaled. Irritating to respiratory system.
Ingestion	Harmful if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts.

Acute toxicity Component Information.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	90 mL/kg (Rat)		
Glutaraldehyde	200 mg/kg (Rat) (50% glutaraldehyde in water)	1749 mg/kg (Rat) (50% glutaraldehyde in water)	
Acetic acid	3310 mg/kg (Rat)	1060 mg/kg (Rabbit)	11.4 mg/L (Rat) 4 h
1H-Indazole, 5-nitro-	3200 mg/kg (Rat)	> 1000 mg/kg (guinea pig)	

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
1H-Indazole, 5-nitro-	Mild skin irritation Mild skin irritation (Repeated exposure) Did not cause sensitization on laboratory animals Mild eye irritation

Subchronic toxicity No information available.

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.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Sensitization May cause sensitization by skin contact.

Target Organ Effects Respiratory system, Eyes, Skin, Teeth, Mucous membrane, Gastrointestinal tract (GI).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects Harmful to aquatic organisms.

Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Glutaraldehyde	0.61 mg/L EC50 72 h (Desmodesmus subspicatus) 0.84 mg/L EC50 96 h (Desmodesmus subspicatus)	LC50 7.8 - 22 mg/L Lepomis macrochirus 96 h LC50 2.6 - 4.8 mg/L Oncorhynchus mykiss 96 h LC50 7.8 - 13 mg/L Oncorhynchus mykiss 96 h LC50= 5.4 mg/L Pimephales promelas 96 h	EC50 = 14 mg/L 48 h (Daphnia magna) EC50 0.56 - 1.0 mg/L 48 h (Daphnia magna)
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 Readily biodegradable.

Bioaccumulation: No information available.

Mobility No information available.

Chemical Name	log Pow
Glutaraldehyde	0.22
Acetic acid	-0.31

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Should not be released into the environment. Dispose of in accordance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not re-use empty containers. Empty containers may contain flammable or explosive vapours. Do not burn, or use a cutting torch on, the empty drum. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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.

Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.

DOT

Description UN3265 Corrosive liquid, acidic, organic, n.o.s (Glutaraldehyde, Acetic acid), 8, PG III, RQ.
Proper Shipping Name Corrosive liquid, acidic, organic, n.o.s.
Hazard class 8
UN/ID No UN3265
Packing Group III
Reportable Quantity (RQ) Acetic acid: RQ kg= 192.95

Special Provisions	IB3, T7, TP1, TP28
Emergency Response Guide Number	153

TDG

Description	UN3265, Corrosive liquid, acidic, organic, n.o.s (Glutaraldehyde, Acetic acid), 8, PG III.
UN/ID No	UN3265
Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.
Hazard class	8
Packing Group	III
UN/ID No	UN3265

ICAO/IATA

UN/ID No	UN3265
Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.
Hazard class	8
Packing Group	III
ERG Code	8L
Special Provisions	A3
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s (Glutaraldehyde, Acetic acid), 8, PG III.

IMDG/IMO

Hazard class	8
UN/ID No	UN3265
Packing Group	III
EmS No.	F-A, S-B
Special Provisions	223, 274
Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.
Description	UN3265, Corrosive liquid, acidic, organic, n.o.s (Glutaraldehyde, Acetic acid), 8, PG III.

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

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	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.

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes.
Chronic Health Hazard	No.
Fire Hazard	No.
Sudden Release of Pressure Hazard	No.
Reactive Hazard	Yes.

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic acid	5000 lb			X

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act.

Chemical Name	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Glutaraldehyde - 111-30-8		Group IV		
Acetic acid - 64-19-7		Group II		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA Product RQ
Acetic acid	5000 lb		

TSCA

Chemical Name	U.S. - TSCA (Toxic Substances Control Act) - Section 8(a) - Chemical-Specific Reporting and Recordkeeping
Water	Partially exempt chemical substance termed Petroleum Process Stream
Glutaraldehyde	PAIR: 09/30/1991

Chemical Name	U.S. - TSCA (Toxic Substances Control Act) - Section 8(d) - 716.120(a) - Health and Safety Reporting - List of Substances
Glutaraldehyde	09/30/1991

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
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Glutaraldehyde	X	X	X		X
Acetic acid	X	X	X		X

International Regulations

Mexico - Grade Serious risk, Grade 3.

Chemical Name	Carcinogen Status	Exposure Limits
Glutaraldehyde		Mexico: Ceiling 0.2 ppm Mexico: Ceiling 0.7 mg/m ³
Acetic acid		Mexico: TWA 10 ppm Mexico: TWA 25 mg/m ³ Mexico: STEL 15 ppm Mexico: STEL 37 mg/m ³

16. OTHER INFORMATION

Disclaimer for Label

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.



DANGER!

Hazardous Components

Chemical Name	CAS-No	Weight %
Glutaraldehyde	111-30-8	40-50
Acetic acid	64-19-7	5-10
1H-Indazole, 5-nitro-	5401-94-5	1-5

Corrosive. The product causes burns of eyes, skin and mucous membranes. Irritating to respiratory system. Harmful if swallowed. May be harmful if inhaled. May be harmful if absorbed through skin. May cause sensitization by skin contact.

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Wash thoroughly after handling.

Additional information is given in the Material Safety Data Sheet.

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.