



RAPIDYNE®

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Date Prepared: March 15, 2015
MSDS No.: 7591

SECTION 1: IDENTIFICATION

Product name: RAPIDYNE (EPA Reg. No. 4959-36-10190)
Recommended use: Sanitizer, disinfectant
Physical Description: Dark red brown viscous liquid with iodine odor
Generic Ingredients: Water, phosphoric acid, and polyethoxy polypropoxy polyethoxy ethanol iodine complex
Manufacturer: Penetone Corporation
 700 Gotham Parkway
 Carlstadt, NJ 07072
 800-631-1652 or 201-567-3000
Business Contact: Customer Service
 800-631-1652 x2602 or 2272
 Product Safety
 800-631-1652 x2211 or 2257

Emergency Phone Numbers: PENETONE 201-567-3000 CHEMTREC 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Health: Skin corrosion: 1B Eye damage: 1	Specific target organ toxicity - repeated exposure: 1 Physical: Corrosive to metals: 1
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DANGER!

Causes Severe Skin Burns and Eye Damage.
 Causes Damage to Organs (Thyroid) Through Prolonged
 Or Repeated Exposure by Ingestion or Inhalation.



Precautionary Statements:	
<p><u>Prevention:</u> Do not breathe vapors or mists if inhalable mists occur during use. Wear protective gloves, clothing, eye protection, and face protection. Do not eat, drink, or smoke when using this product. Wash hands and exposed skin thoroughly after handling. Keep only in original container</p> <p><u>Response:</u> <i>If swallowed:</i> Rinse mouth. Do NOT induce vomiting. <i>If on skin or hair:</i> Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. <i>If in eyes:</i> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>	<p><i>If inhaled:</i> Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center, doctor, emergency room, or 911. Get medical advice/attention if you feel unwell. Absorb spillage to prevent material damage.</p> <p><u>Storage:</u> Store locked up. Store in corrosive resistant container, plastic (HDPE) is recommended, or container with a resistant inner liner.</p> <p><u>Disposal:</u> Dispose of contents in accordance with local/regional/national international regulations.</p>

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Concentration Wt%
Water	7732-18-5	48
Phosphoric acid	7664-38-2	25
Methyl-oxirane polymer with oxirane	9003-11-6	20
Hydriodic acid-iodine complex	not assigned	6.6



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SECTION 4: FIRST-AID MEASURES

General Description of Symptoms & First-Aid Measures

Most likely work-place exposure routes will be *skin contact* or *inhalation*.

For *skin contact*, typically no immediate effects will be observed. A tingling or burning sensation might be felt some time after exposure. Slight reddening or minor irritation could also develop if product is not quickly washed off. If product not washed off or left in contact with skin for some time, skin burn could result.

Inhalation exposure may produce varied effects, particularly if exposure occurs above the recommended workplace exposure limits (see SECTION 8). Typical symptoms could include coughing, sneezing, and a tingling or burning sensation in the nose, throat, and lungs.

Eyes

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a local Poison Control Center, doctor, physician or other competent medical authority for medical advice. Penetone recommends that after any eye exposure a physician be seen immediately.

Ingestion

If swallowed: Rinse mouth. **DO NOT INDUCE VOMITING.** Immediately call a poison center, doctor, physician or other competent medical authority for medical advice.

Inhalation

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a local Poison Control Center, physician, or other competent medical authority for medical advice.

Skin

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. A mild soap may be used to wash skin. Wash contaminated clothing before reuse. Immediately call a local Poison Control Center, doctor, physician or other competent medical authority for medical advice.

Special Treatment / Other

None

SECTION 5: FIRE FIGHTING MEASURES

Flammable Properties

Classification: Non-flammable

Flash Point: None-to-boil

Autoignition Temperature: Not determined

Lower Flammable Limit: Not applicable **Upper Flammable Limit:** Not applicable

Specific Hazards

Product is water based and presents no unusual fire hazards. Product may react with chemically reactive metals such as aluminum, zinc, magnesium, copper, etc. to release hydrogen gas which can form explosive mixtures in air. Iodine is volatile and open containers could give off significant amounts of iodine vapor at temperatures above 120°F.

Extinguishing Media

Use extinguishing agents appropriate for controlling surrounding fire.

Unsuitable: None.

Protection & Precautions for Firefighters

Protective Equipment & Clothing: Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.



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Fire Fighting Guidance: Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it safely. Dike fire control water for later disposal; do not scatter material. Containers can expand and explode under fire conditions due to vapor buildup. Always stay away from containers engulfed in fire.

Hazardous Combustion Products: Smoke, fumes, and oxides of carbon when taken to dryness. Iodine is volatile and open containers could give off significant amounts of iodine vapor at temperatures above 120°F.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Land Spill

Absorb spillage to prevent material damage. Stop leak if you can do it safely. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spill, soak up with absorbent material and place in properly labeled containers for disposal. Neutralize residue with dilute acid and follow with a liberal covering of sodium bicarbonate or other acceptable drying agent.

Water Spill

This is a water based product and will completely mix/dissolve in water making recovery difficult. This product is acidic and will lower the pH of surface waters. Check with local environmental regulatory agencies for reporting requirements.

See SECTION 8 for EXPOSURE CONTROLS and PERSONAL PROTECTION.

SECTION 7: HANDLING & STORAGE

Handling

Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Avoid personal contact with any residue. Do not cut, weld, or reuse empty container.

Storage

Store locked up. Store in corrosive resistant container. Plastic is recommended. If storing in a metal container, it must be NON-ALUMINUM with a resistant inner liner (NOTE: flammable hydrogen gas may be generated if aluminum container and/or aluminum fittings are used). If secondary containers are used, plastic is recommended. Keep container tightly closed when not in use. Do not store near strong bases. Do not store in direct sunlight. Avoid storing above 120°F (49°C).

SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

Personal Protection

Inhalation A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. Use of an organic vapor mask or respirator is recommended.

Skin Wear chemical resistant gloves such as: rubber, nitrile, neoprene, or latex when skin contact is possible. Protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn depending on how the product is used. PPE should be cleaned thoroughly after each use.

Eyes Penetone recommends always wearing safety glasses as a minimum in any workplace. Conditions may warrant the use of chemical goggles and possibly a face shield. Consult your standard operating procedure or safety professional for advice. Use protective eye and face devices that comply with ANSI Z87.1-1987.



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Additional Remarks

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

Occupational Exposure Limits

<u>Component Name</u>	<u>Source</u>	<u>Value</u>	<u>Type</u>	<u>Notation</u>
Iodine	ACGIH	0.01 ppm IFV	TWA	A4
		0.1 ppm I	STEL	
Phosphoric acid	NIOSH	0.1 ppm	C	
	OSHA Z1	0.1 ppm	C	
	ACGIH	1 mg/m ³	TWA	
		3 ppm	STEL	
	NIOSH	1 mg/m ³	TWA	
	OSHA Z1	3 ppm	STEL	
	OSHA Z1	1 mg/m ³	TWA	

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

Appearance: dark red brown viscous liquid

Odor: iodine

Odor Threshold: not determined

pH: <1

Melting Point / Freezing: about 25°F

Boiling Point / Boiling Point Range: about 212°F

Flash Point: not applicable

Evaporation Rate: equal to water

Flammability: not applicable

Lower Flammable Limit: not applicable

Upper Flammable Limit: not applicable

Explosive Properties: not applicable

Vapor Pressure: equal to water

Relative Vapor Density: equal to water

Relative Density: 1.23

Solubility (Water): soluble in water

Partition Coefficient (K_{ow}): not determined

Auto-ignition temperature: not applicable

Decomposition temperature: not applicable

Viscosity: 25-50 centipoise at room temperature

Additional Physical and Chemical Properties: Iodine may be converted to iodide by using sodium thiosulfate

SECTION 10: STABILITY & REACTIVITY

Reactivity

Product will react with bases, giving off heat and potentially splattering.

Chemical Stability

Stable.



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Hazardous Reactions

Mixing with bases will give off heat and may cause splattering and release iodine vapor. Will react with some metals forming flammable hydrogen gas (see below). Powdered form of these metals will greatly increase reactivity.

Conditions to Avoid

Acidic liquid. Do not store near strong bases.

Incompatible Materials

Strong bases. Soft metals such as aluminum, brass, bronze, copper, lead, tin, zinc or other acid sensitive metals or alloys.

Hazardous Decomposition Products

Oxides of carbon and phosphorus when taken to dryness. Iodine is volatile and open containers could give off significant amounts of iodine vapor at temperatures above 120°F.

SECTION 11: TOXICOLOGICAL INFORMATION

Product Summary

This product contains phosphoric acid which is corrosive to all tissues. Contact with skin and/or eyes, ingestion, or inhalation of spray mist may be corrosive. Possible effects include severe irritation, burns, and permanent damage to exposed tissues if immediate action is not taken. Iodine is an essential trace nutrient for proper functioning of the thyroid gland. Overexposure could result in hyperthyroidism.

Acute Toxicity:

Dermal: LD50 > 2,000 mg/kg rabbit (estimated using additivity formula)

Inhalation: No data available

Oral: LD50 > 2,000 mg/kg rat (estimated using additivity formula)

Skin Corrosion/Irritation

Corrosive. Causes skin burns. Prolonged or repeat skin exposures can result in dermatitis.

Serious Eye Damage/Irritation

Corrosive. Causes serious eye damage which can result in severe irritation, pain and burns, and permanent damage including blindness.

Sensitization - Respiratory or Skin

Based upon components, product is not expected to be a respiratory or skin sensitizer.

Germ Cell Mutagenicity

Based upon components, product is not expected to result in germ cell mutagenicity.

Carcinogenicity

Iodine is listed by ACGIH as Group A4: Not classifiable as a human carcinogen.

Reproductive Toxicity

Insufficient data for the components to evaluate. Given the product's tissue corrosiveness, other more pronounced effects would be seen making evaluation of reproductive toxicity unlikely.

Specific Target Organ Effects - Single Exposure

No data.

Specific Target Organ Effects - Repeated or Prolonged Exposure

Iodine is an essential trace nutrient for proper functioning of the thyroid gland. Overexposure could result in hyperthyroidism.

Aspiration Hazard

Based upon available data, product not considered an aspiration hazard.



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SECTION 12: ECOLOGICAL INFORMATION

Product Summary

This material contains phosphoric acid and will raise the pH of surface waters. Product should be considered moderately toxic to aquatic organisms.

Ecotoxicity

Freshwater Fish: LC50 50-100 mg/l (estimated using additivity formula)
Other aquatic organisms insufficient data to use additivity formula.

Persistence and Degradability

Phosphoric acid will dissociate into its ionic form in the aquatic environment. Natural carbon dioxide will slowly neutralize it. The surfactant used in this product is readily biodegradable.

Bioaccumulative Potential

Bioaccumulation potential of the materials used in this product are low.

Label Statement:

Environmental Hazards: This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

SECTION 13: DISPOSAL CONSIDERATIONS

Product is a D002 Corrosive Hazardous Waste under RCRA definitions. Dispose of contents/container in accordance with all applicable federal, state, and local regulations.

Note: Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Appropriate hazardous waste designation is the responsibility of the user.

Label Statement:

PESTICIDE DISPOSAL: Do not contaminate food, water, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide wastes or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **5 Gallon or less containers** - Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Capacity greater than 5 gallon containers** - Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or recondition, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14: TRANSPORT INFORMATION

ID No.: UN1805
Proper Shipping Name: PHOSPHORIC ACID, solution
Hazard Class: 8
Packing Group: III



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Label: CORROSIVE
Marine Pollutant: No
RQ: 20,000 lbs (about 1,950 gallons) of product for phosphoric acid
Special Precautions: none

SECTION 15: REGULATORY INFORMATION

TSCA
The ingredients in this product are listed on the TSCA inventory.

RCRA HAZARD CLASS
D002 - Corrosive hazardous waste

SARA 311/312 REPORTABLE HAZARD CATEGORIES: Immediate (Acute) Health

REPORTING REQUIREMENTS (all quantities in pounds)

Component	CAS / 313 Code	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ (1)	Section 313	CAA 112(r) TQ	CWA / OPA
Phosphoric acid	7884-38-2			5,000	313		
Product RQ for component				20,000 1,950 gal			
(1) Releases exceeding the RQ just be reported to the National Response Center, 800-424-8802 and may be subject to state and local reporting.							

NEW JERSEY RIGHT-TO-KNOW INFORMATION
This product contains water (CAS# 7732-18-5), polyethoxy polypropoxy polyethoxy ethanol-iodine complex (CAS# not available), and phosphoric acid (CAS# 7732-38-2).

CALIFORNIA PROPOSITION 65 INFORMATION
This product does not contain any chemicals recognized by the state of California to cause cancer and/or birth defects or reproductive harm.

SCAQMD INFORMATION
Is there a photochemically reactive material present? No
What is the % by volume of photochemically reactive material? 0
What is the VOC content? 0
What is the vapor pressure of VOC's? 0

SECTION 16: OTHER INFORMATION

REVISION SUMMARY
New GHS format

SUPERSEDES ISSUE DATE
July 2, 2007

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	3	3
FLAMMABILITY	0	0
REACTIVITY	0	0
	B	

KEY
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal



SAFETY DATA SHEET

Penetone® Corporation, 700 Gotham Parkway, Carlstadt, NJ 07072

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FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR SALES ENGINEER
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 201-567-3000

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