

## Periodic Acid Solution, 50%

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Periodic acid solution, 50%

**Synonyms/Generic Names:** none

**Product Number:** 3939

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Columbus Chemical Industries, Inc.  
N4335 Temkin Rd.  
Columbus, WI. 53925

**For More Information:** 920-623-2140 (Monday-Friday 8:00-4:30)  
[www.columbuschemical.com](http://www.columbuschemical.com)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Oxidizer, Corrosive

**Signal Words:** Danger

**Pictograms:**



**GHS Classification**

Oxidizing liquids	Category 2
Skin corrosion	Category 1
Serious eye damage	Category 1

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H272	May intensify fire; oxidizer.
H290	May be corrosive to metals
H314	Causes serious skin burns.
H218	Causes serious eye damage.

**Precautionary Statements:**

P220	Keep/Store away from combustible materials
P221	Take any precaution to avoid mixing with combustibles.
P261	Avoid breathing gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.

P270	Do not eat, drink or smoke when using this product.
P271	Use in a well ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor/physician.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use appropriate media to extinguish.
P371+P380+P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

### Potential Health Effects

<b>Eyes</b>	May cause serious damage.
<b>Inhalation</b>	Irritating to the respiratory system. Causes irritation to the respiratory tract.
<b>Skin</b>	Irritating to skin. Contact causes redness, burns, itching and pain. Prolonged or repeated skin exposure may cause dermatitis.
<b>Ingestion</b>	Causes irritation and pain.

### NFPA Ratings

<b>Health</b>	3
<b>Flammability</b>	0
<b>Reactivity</b>	1
<b>Specific hazard</b>	OX

### HMIS Ratings

<b>Health</b>	3
<b>Fire</b>	0
<b>Reactivity</b>	1
<b>Personal</b>	Not Available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Ortho-periodic acid	49-51%	10450-60-9	233-937-0	H <sub>5</sub> IO <sub>6</sub>	227.9 g/mol
Water	Balance	7732-18-5	231-791-2	H <sub>2</sub> O	18.00 g/mol

## 4. FIRST-AID MEASURES

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. Exposure to material may cause delayed lung injury resulting in pulmonary edema and pneumonitis. Exposed individuals should be monitored for 72 hours after exposure for the onset of delayed respiratory symptoms.
<b>Skin</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

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## 5. FIREFIGHTING MEASURES

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<b>Suitable (and unsuitable) extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use flooding quantities of water to cool containers.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Product components will burn producing oxygen. (See also Stability and Reactivity section).

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use.

### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area. Isolate from combustible material. Store in the dark. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Occupational exposure controls:** Contains no substances with occupational exposure limit values.

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles, with a face shield for splash protection.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear neoprene or nitrile gloves, apron and other protective clothing appropriate to the risk of exposure. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling. Have supplies and equipment for neutralization and running water available.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance (physical state, color, etc.)	Clear, colorless to pale yellow liquid
Odor	Not Available
Odor threshold	Not Applicable
pH	<1
Melting point/freezing point	Not available
Initial boiling point and boiling range	110-140 °C
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limit	Not Available
Vapor pressure	Not Available
Vapor density	7.9
Relative density	1.65 g/cm <sup>3</sup> @ 20 °C
Solubility (ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Applicable
Decomposition temperature	Not Available

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under normal conditions
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Store out of direct light.
<b>Incompatible Materials</b>	Metals, organic materials, reducing agents, metallic oxides, dusts, combustible materials, strong bases.
<b>Hazardous Decomposition Products</b>	Iodine fumes.

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## 11. TOXICOLOGICAL INFORMATION

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**Acute Toxicity:** Not available

**Carcinogenicity:** Not available

### Signs & Symptoms of Exposure

<b>Skin</b>	Redness, burning, irritation, corrosion, and pain.
<b>Eyes</b>	Causes severe eye damage.
<b>Respiratory</b>	Coughing, shortness of breath, burning, choking, coughing, wheezing, laryngitis, headache or nausea.
<b>Ingestion</b>	May cause severe gastrointestinal tract burns

<b>Chronic Toxicity</b>	May cause bronchial irritation
<b>Teratogenicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity</b>	Not available
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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<b>Ecotoxicity</b>	Not available
<b>Persistence and Degradability</b>	Not Available

<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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### 13. DISPOSAL CONSIDERATIONS

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<b>Waste Product or Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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### 14. TRANSPORTATION INFORMATION

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US DOT	UN3098, Oxidizing liquid, corrosive, n.o.s. (Periodic acid), 5.1 (8), PG II
TDG	UN3098, OXIDIZING LIQUID, CORROSIVE, N.O.S. (PERIODIC ACID), 5.1 (8), PG II
IMDG	UN3098, OXIDIZING LIQUID, CORROSIVE, N.O.S. (PERIODIC ACID), 5.1 (8), PG II
Marine Pollutant	No
IATA/ICAO	UN3098, OXIDIZING LIQUID, CORROSIVE, N.O.S. (PERIODIC ACID), 5.1 (8), PG II

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### 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSL inventory.
California Proposition 65	Not Listed
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute health hazard
SARA 312	Acute health hazard
SARA 313	Not Listed
WHMIS Canada	Class C: Oxidizing material Class E: Corrosive material

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### 16. OTHER INFORMATION

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Revision	Date
Original	04/25/2019
Revision 1	05/29/2019

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