

## Safety Data Sheet

### 1) Identification of Material and Manufacturer

<b>Product Name</b>	Periodic Acid Solution
<b>Product Use(s)</b>	Industrial Solution
<b>Manufacturer/Seller</b>	IodiTech Inc.
<b>Address</b>	951 N. Topping Ave., Kansas City, MO, 64120 U.S.A.
<b>Emergency Telephone</b>	Chemtrec 800.424.9300
<b>E-mail</b>	info@ioditech.com

### 2) Hazards Identification

<b>Chemical Name</b>	Periodic Acid, HIO <sub>4</sub>
<b>Classification of Substance</b>	Corrosive
<b>CAS</b>	10450-60-9
<b>OSHA PEL</b>	None Established
<b>ACGIH TLV</b>	None Established



### 3) Composition Information

<b>Ingredient</b>	<b>Concentration</b>
Periodic Acid	50% w/w

Periodic Acid

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#### 4) First Aid Measures

<b>Inhalation</b>	Move victim to fresh air. Seek immediate medical attention.
<b>Skin Contact</b>	Wash exposed area thoroughly with soap and water. Seek immediate medical attention.
<b>Eye Contact</b>	Immediately flush eyes with water, remove contacts if present, flush with water for another 15 minutes. Seek immediate medical attention.
<b>Ingestion</b>	Promptly drink large quantities of water, vegetable or mineral oil. Seek immediate medical attention. Do NOT induce vomiting.

#### 5) Firefighting Measures

<b>Extinguishing Media</b>	Carbon dioxide, or foam
<b>Special Hazards</b>	May produce iodine and hydrogen iodide fumes. Will increase intensity of flames if exposed.
<b>Additional Information</b>	Firefighter should wear self-contained breathing apparatus, if possible.

#### 6) Accidental Release Measures

<b>In case of spill, leak, or release</b>	Large spills should be handled only by individuals trained in hazardous material handling. Keep combustibles such as wood, paper, oil, etc. away from spill. Wear appropriately respiratory devices and protective clothing when cleaning up spill. Use a non-combustible material such as sand or vermiculite to cover spill or soak up spill. Place spilled material in non-combustible and properly labeled drum. DO NOT dispose of in regular waste containers, may create spontaneous combustion. Flush area of spill with water after removing spill.
<b>Method of waste disposal</b>	Follow all local, municipal, state, and federal guidelines, if in the United States of America. For all other countries, consult local, regional, or country regulations as applicable to a hazardous product.

- ***This material is hazardous.***
- ***Containment material may be placed in appropriate containers and disposed of in accordance with applicable governmental agencies for your location.***

#### 7) Handling and Storage

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<ul style="list-style-type: none"> <li>• Store in cool, dry location</li> </ul>	<ul style="list-style-type: none"> <li>• Protect from heat, light, moisture</li> </ul>	<ul style="list-style-type: none"> <li>• Must use with adequate ventilation</li> </ul>
<ul style="list-style-type: none"> <li>• Chemical resistant gloves must be worn</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT dispose of soiled clothing, gloves, etc. in regular refuse containers.</li> </ul>	<ul style="list-style-type: none"> <li>• Wash hands thoroughly, immediately before and after use</li> </ul>
<ul style="list-style-type: none"> <li>• Safety glasses or goggles must be worn</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use waterless hand cleaners</li> </ul>	<ul style="list-style-type: none"> <li>• Use good personal hygiene</li> </ul>
<ul style="list-style-type: none"> <li>• Use chemical resistant apron</li> </ul>	<ul style="list-style-type: none"> <li>• Do NOT reuse containers</li> </ul>	

## 8) Exposure Controls and Personal Protection

<b>Periodic Acid</b>	<b>OSHA PEL</b>	None Established
	<b>ACGIH TLV</b>	None Established

<b>Engineering Controls</b>	Use adequate ventilation from mechanical source to control airborne vapor exposure.
<b>Personal Protection</b>	<ul style="list-style-type: none"> <li>• Wear a NIOSH/MSHA-approved respirator with a HEPA cartridge or equivalent.</li> <li>• Wear chemical resistant gloves based on nitrile, neoprene, or rubber construction.</li> <li>• Wear safety glasses with side shields, or goggles.</li> <li>• Wear body protection to avoid skin contact.</li> </ul>

## 9) Physical and Chemical Properties

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<b>Appearance</b>	Colorless to pale yellow liquid	<b>Flash Point</b>	Non-Flammable
<b>Odor</b>	Odorless or mild ozone	<b>Est. Explosive Range Limit</b>	LEL - Not Available UEL - Not Available
<b>Odor Threshold</b>	Not Applicable	<b>Flash Point Method Used</b>	Not Applicable
<b>pH</b>	<1 (as 50% solution)	<b>Partition Coefficient</b>	Not Available
<b>Melting Point</b>	Not Applicable	<b>Decomposition Temperature</b>	Not Available
<b>Boiling Point</b>	Not Available	<b>Specific Gravity</b>	1.6
<b>Vapor Pressure</b>	7.9	<b>Explosive Properties</b>	Not Explosive
<b>Evaporation Rate</b>	Not Available	<b>Oxidizing Properties</b>	Oxidizer
<b>Solubility in Water</b>	Complete	<b>Other Information</b>	Contains Iodine

## 10) Stability and Reactivity Data

<b>Chemical Stability</b>	Stable, when stored properly.
<b>Conditions to Avoid</b>	Combustibles, reducing agents, organics, chlorinated compounds, and high heat. Can react violently with organics, or finely powdered metals, magnesium, ammonium perchlorate.
<b>Incompatibility</b>	Combustibles, reducing agents, organics, chlorinated compounds, and high heat. Can react violently with organics, or finely powdered metals, magnesium, ammonium perchlorate.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Hazardous Decomposition</b>	Hazardous iodine, hydrogen iodide may be released.

## 11) Toxicology Information

Periodic Acid	<b>LD<sub>50</sub> (oral)</b>	Not Available
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- ***Not considered orally toxic except with extreme intake levels.***
- ***This product is considered a skin corrosive or irritant under normal exposure.***
- ***After exposure skin may become irritated and demonstrate redness, pain, dryness and itching.***
- ***Will cause eye irritation as evidenced by pain, redness and tearing of eyes.***
- ***Will be irritating to respiratory tract under normal conditions.***
- ***Avoid breathing mist.***
- ***Increased nasal mucous membrane production and increased tears in eyes will occur upon breathing vapor.***
- ***Germ cell mutagenicity has not been conducted for this material.***
- ***This product does not contain any known carcinogens.***
- ***This product does not cause reproductive toxicity.***

## **12) Ecological Information**

<b>Toxicity</b>	Not toxic to environment under U.S. EPA regulations.
<b>Persistence/Degradation in Environment</b>	Expected to completely degrade under typical circumstances under U.S. EPA standards.
<b>Bioaccumulation</b>	Does not accumulate under U.S. EPA standards.
<b>Mobility in Soil</b>	Not studied.

## **13) Disposal**

- ***Under applicable U.S. Environmental Protection Agency regulations this material is not considered to be environmentally hazardous in regards to waste disposal.***
- ***Follow all local, municipal, U.S. state, and U.S.federal regulations if in the United States of America.***
- ***For other countries consult your local, area, or country regulatory authority as applicable to a hazardous product.***

## **14) Transportation and Shipping**

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<b>Americas Region</b>	Corrosive, Class 8
<b>Proper Shipping Name</b>	Corrosive liquid, oxidizing (Periodic acid Sol.) N.O.S. 8, 5.1
<b>U.N. Number</b>	3093
<b>International</b>	Follow U.N. recommendations on The Transport of Dangerous Goods, 17th edition, revised
<b>Ocean</b>	Follow IMO International Maritime Dangerous Goods Code
<b>Air</b>	Follow IATA Dangerous Goods Regulation

### 15) Regulatory Information

<b>CERCLA Sec. 103 RQ#</b>	NO	<b>EHS 302 TPQ</b>	NO
<b>RCRA Sec. 261.33</b>	NO	<b>TSCA Listed?</b>	YES
<b>SARA Sec. 261.33 RQ#</b>	NO	<b>EPA Special Hazard</b>	NO
<b>SARA 312 Name List</b>	YES	<b>CA Prop 65</b>	NO
<b>SARA 313 Name List</b>	YES	<b>REACH Listed?</b>	NO

<b>SARA Section 312 Hazardous Categories</b>	
<b>Immediate (acute) Health Hazard</b>	YES
<b>Delayed (chronic) Health Hazard</b>	YES
<b>Fire Hazard</b>	NO
<b>Reactivity Hazard</b>	YES
<b>Sudden Release of Pressure</b>	NO

### 16) Other Information

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*The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for injuries from the use of the product described herein.*

**RESOURCES:**

- United States Environmental Protection Agency
- United States Occupational Health and Safety Administration
- United States Department of Transportation
- United State Drug Enforcement Administration
- United Nations "Transport of Dangerous Goods" 17<sup>th</sup> Edition, 2011
- International Maritime "Dangerous Goods Code"
- International Air Transportation Association "Dangerous Goods Regulation"

**TERMINOLOGY:**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>RCRA</b>	Resource Conservation and Recovery Act
<b>CA</b>	State of California, U.S.A.	<b>REACH</b>	Registration, Evaluation, Authorization and Restriction of Chemicals
<b>CAS</b>	Chemical Abstract Services	<b>SARA</b>	Superfund And Reauthorization Act
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act	<b>TLV</b>	Threshold Limit Value
<b>EHS</b>	Environmental Health and Safety	<b>TPQ</b>	Threshold Planning Quantity
<b>HEPA</b>	High Efficiency Particulate Air	<b>TSCA</b>	Toxic Substances Control Act
<b>LEL</b>	Lower Explosive Limit	<b>UEL</b>	Upper Explosive Limit
<b>LD<sub>50</sub></b>	Lethal dose for 50% of population	<b>UN</b>	United Nations
<b>MSHA</b>	Mine Safety Health Administration	<b>IATA</b>	International Air Transport Association
<b>NIOSH</b>	National Institute of Occupational Safety and Health	<b>EPA</b>	Environmental Protection Agency
<b>OSHA</b>	Occupational Safety and Health Administration	<b>DoT</b>	Department of Transportation
<b>PEL</b>	Permissible Exposure Limits	<b>IMO</b>	International Maritime Organization