

## SPI Supplies Division

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Manufacturer's CAGE: 1P573

## Safety Data Sheet

Date Effective: February 24, 2015

SPI #'s 02594-AA, 02594-AB  
SPI-Chem™ Sodium Periodate

Component of:  
02592-AA, 02592-AB  
SPI-Chem™ Ruthenium Tetroxide Staining Kit

### Section 1: Identification

Chemical Name/Synonyms..... Sodium periodate; Sodium metaperiodate; Sodium salt of periodic acid

Chemical family..... inorganic salt

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name..... Sodium Periodate

CAS #'s..... 7790-28-5

Chemical Formula..... NaIO<sub>4</sub>

#### HAZARDS IDENTIFICATION:

OSHA HAZARD: Oxidizer; Irritant

GHS CLASSIFICATION:

Oxidizing Solids, Category 2

Acute Toxicity, Category 3

Skin Corrosion/Irritation, Category 2

Serious Eye Damage/Eye Irritation, Category 2

Specific Target Organ Toxicity (Single Exposure)(respiratory tract irritation), Category 3

Pictograms:



Signal Word: Danger

Hazard Statements:

H271 May cause fire or fire or explosion; strong oxidizer

H301 Toxic if swallowed

- H315 Causes skin irritaiton
- H319 Causes serious eye irritation
- H335 May cause respiratory irritation

Precautionary Statements:

- P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P220 Keep/Store away from clothing/incompatible materials/combustible materials
- P221 Take any precaution to avoid mixing with combustibles
- P261 Avoid brathing dust/fume/gas/mist/vapours/spray
- P264 Wash hands thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area

Hazardous Material Information System USA

- Health..... 2
- Fire Hazard..... 0
- Reactivity..... 3
- Personal Protection..... Goggles, shield, lab coat, gloves, vent hood

NFPA Rating (estimated)

- Health..... 2
- Flammability..... 0
- Reactivity..... 3
- Special..... ox

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Section 2: Composition

Component Name	CAS #	Percent	EINECS/ELINCS
Sodium periodate	7790-28-5	>99	232-197-6

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Section 3: Hazard Identification

**Emergency overview:** Strong oxidizer. Causes respiratory tract, eye and skin irritation. May be harmful if swallowed. Contact with other material may cause a fire.

**Warning!** Strong Oxidizer.

**Target Organs:** Eyes, Skin, Respiratory System

**Potential Health Effects**

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** May be harmful if swallowed. May cause irritation of the digestive tract.

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Chronic:** Repeated or prolonged skin contact may cause dermatitis.

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## Section 4: First Aid Measures

**Eyes:** Flush eyes with copious amounts of water for at least 15 minutes, lifting the eyelids. Seek immediate medical attention.

**Skin:** Flush skin with copious amounts of water for at least 15 minutes, removing contaminated clothing and shoes. Seek medical attention.

**Ingestion:** Give 2-4 cupfuls of milk or water if the victim is conscious and alert. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

**Notes to Physician:** Treat symptomatically and supportively.

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## Section 5: Fire Fighting Measures

**General Information:**

**Flash Point:** Not available

**Explosion Limits:**

**Upper:** Not available

**Lower:** Not available

**Extinguishing Media:** Use water only! May require flooding with water in order to eliminated hazardous reactions, since this material generates its own oxygen. Do NOT use dry chemicals, CO<sub>2</sub>, Halon, or foams.

**Protective Gear:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH or European Standard EN 149 (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire.

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## Section 6: Accidental Release Measures

**General Information:** Wear chemical safety goggles, face protection, appropriate protective gloves and protective clothing to prevent skin exposure, a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH or European Standard EN 149 (approved or equivalent), and full protective gear.

**Spills/Leaks:** Sweep up material and place in suitable disposal container. Keep all combustibles away from spilled material. Provide ventilation. Avoid raising dust.

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## Section 7: Handling and Storage

**Handling:** Wash thoroughly after handling. Use adequate ventilation. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin and clothing. Keep from contact with combustible materials. Minimize dust formation and accumulation. Avoid breathing dust.

**Storage:** Store in tightly closed container in cool, dry, well-ventilated area. Keep away from incompatible materials. Keep away from all combustible materials. Keep away from all reducing agents.

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## Section 8: Exposure Controls and Personal Protection

**Engineering Controls:** Eyewash station and safety shower required. Provide adequate ventilation to keep airborne concentrations low.

### Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium periodate	n/a	n/a	n/a

### OSHA Vacated PELs:

None listed for this material.

### Personal Protective Equipment

**Eyes:** Chemical safety goggles

**Skin:** Wear appropriate protective gloves to prevent skin contact.

**Clothing:** Wear appropriate protective clothing to prevent skin contact.

**Respirators:** If irritation or other symptoms are experienced, use a MSHA/NIOSH or European Standard EN 149 approved respirator.

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## Section 9: Physical and Chemical Properties

**Physical State:** crystalline solid

**Appearance:** white to light yellow

**Odor:** odorless

**pH:** not available

**Vapor Pressure:** not available

**Vapor Density:** not available

**Evaporation Rate:** not available

**Viscosity:** not available

**Boiling Point:** not available

**Freezing/Melting Point:** 300°C (decomposes)

**Autoignition Temperature:** not available

**Flash Point:** not available

**Decomposition Temperature:** 300°C

**Explosion Limits:**

**Lower:** not available

**Upper:** not available

**Solubility in water:** 80 grams/liter @ 20°C

**Specific Gravity/Density:** not available

**Molecular Formula:** NaIO<sub>4</sub>

**Molecular Weight:** 213.89

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## Section 10: Stability and Reactivity

**Chemical Stability:** Stable under normal conditions of temperature and pressure.

**Conditions to Avoid:** Dust production.

**Incompatibility with Other Materials:** Combustible materials, Strong reducing agents.

**Hazardous Decomposition of Products:** Hydrogen iodide, Sodium oxide, Iodine.

**Hazardous Polymerization:** Will not occur.

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## Section 11: Toxicological Information

**RTECS#:** SD4550000

**LD<sub>50</sub>/LC<sub>50</sub> Information:** Not available

**Carcinogenicity:**

Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Teratogenicity:** Not available.

**Reproductive Effects:** Not available.

**Neurotoxicity:** Not available.

**Mutagenicity:** Not available.

**Other Studies:** No data available.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## Section 12: Ecological Information

**Exotoxicity:** No information available.

**Environmental Fate:** No information available.

**General Notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course, or sewage system.  
Do not allow material to be released to the environment without proper governmental permits.

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## Section 13: Disposal Considerations

Dispose of in accordance with all federal, state and local regulations.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

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## Section 14: Transport Information

**US DOT Hazard Class:**

Shipping Name:	Oxidizing solid, toxic, n.o.s. (sodium metaperiodate)
Hazard Class:	5.1 (6.1)
UN Number	UN3087
Packing Group:	II

**IATA (for international shipments)**

Shipping Name:	Oxidizing solid, toxic, n.o.s. (sodium metaperiodate)
Hazard Class:	5.1

UN Number  
Packing Group:

UN3087  
II

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## Section 15: Regulatory Information

### **TSCA:**

CAS# 7790-28-5 is listed on the TSCA Inventory.

### **Health & Safety Reporting List:**

CAS# 7790-28-5 is not listed on the Health & Safety Reporting List.

### **Chemical Test Rules:**

None of the chemicals in this product are under a Chemical Test Rule.

### **Section 12b:**

None of the chemicals in this material are listed under TSCA Section 12B.

### **TSCA Significant New Use Rule:**

None of the chemicals in this product have a SNUR under TSCA.

### **CERCLA Section 103:**

None of the chemicals in this material have an RQ.

### **SARA:**

#### **Section 302 (TPQ)**

None of the chemicals in this material have a TPQ.

#### **SARA Codes**

CAS# 7790-28-5: Fire.

#### **Section 313**

None of the chemicals in this material are reportable under Section 313.

#### **Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### **Clean Water Act:**

None of the chemicals in this material is listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### **OSHA:**

None of the chemicals in this product is considered highly hazardous by OSHA.

#### **State (Individual states in the USA)**

This chemical is listed on state lists from NJ and PA.

#### **California Prop. 65:**

None of the chemicals in this product is listed.

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## Section 16: Other Information

### **Disclaimer of Liability:**

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

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