

## SAFETY DATA SHEET

Preparation Date: 8/25/2015

Revision Date: 8/25/2015

Revision Number: G1

### 1. IDENTIFICATION

**Product identifier**

**Product code:** S1381  
**Product Name:** SODIUM PERIODATE, GRANULAR, REAGENT, ACS

**Other means of identification**

**Synonyms:** Sodium m-periodate  
 Sodium metaperiodate  
 Periodic acid, sodium salt

**CAS #:** 7790-28-5  
**RTECS #** SD4550000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** In organic reactions. Analytical reagent.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Oxidizing solids	Category 2

**Label elements**

## Danger

### Hazard statements

Toxic if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation  
May intensify fire; oxidizer



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

Not available

### **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep/Store away from clothing/ /combustible materials  
Take any precaution to avoid mixing with combustibles .?  
Wear protective gloves/protective clothing/eye protection/face protection

### **Precautionary Statements - Response**

IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO<sub>2</sub> or Halon may provide limited control.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash it before reuse

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Sodium Periodate 7790-28-5	7790-28-5	100

### 4. FIRST AID MEASURES

First aid measures**General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

**Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

**Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention. If symptoms persist, call a physician.

**Inhalation:**

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.

**Ingestion:**

Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

**Most important symptoms and effects, both acute and delayed****Symptoms**

Toxic if swallowed. Causes serious eye irritation. Eye contact may result in redness or pain. Causes skin irritation. Irritating to respiratory system. May cause coughing and shortness of breath. May cause abdominal pain, nausea, vomiting, diarrhea. May affect the liver. It may affect the kidneys. May affect behavior/central nervous system.

**Indication of any immediate medical attention and special treatment needed****Notes to Physician:**

Treat symptomatically

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media****Suitable Extinguishing Media:**

Water. CO2 may be of no value in extinguishing fires involving oxidizers and may only provide limited control.

**Unsuitable Extinguishing Media:**

Dry chemical. Foam. Halons.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:**

Sodium oxides, Hydrogen iodine

**Specific hazards:**

Oxidizer. Keep away from combustible materials (wood, paper, oil, clothing, etc.) The product is not flammable, but it may cause fire when in contact with other material. Contact with combustible or organic materials may cause fire. Contact with finely divided (powdered) metals may cause ignition (fire) or explosion. Will accelerate burning when involved in a fire. Container explosion may occur under fire conditions or when heated

**Special Protective Actions for Firefighters**

**Specific Methods:**

Water mist may be used to cool closed containers. Cool affected containers with flooding quantities of water. Apply water from as far a distance as possible. DO NOT use combustible materials such as sawdust. Do not get water inside containers.

**Special Protective Equipment for Firefighters:**

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

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:**

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid dust formation. Remove all sources of ignition.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sewers, waterways, and/or ground water. Prevent product from entering drains. Do not let this chemical enter the environment.

**Methods and material for containment and cleaning up**

**Methods for containment**

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up**

Sweep up and shovel. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Do not use combustible materials such as paper towels, sawdust, clothing, etc. to clean up spill. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Technical Measures/Precautions:**

Avoid dust formation. Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

**Safe Handling Advice**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Use only in well-ventilated areas. Do not breathe vapors/dust. Do not ingest. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**

Hygroscopic. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area. Do not store near combustible materials.

**Incompatible Materials:**

Reducing agents. Powdered metals. Combustible materials. Organic materials.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**National occupational exposure limits**

**United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Sodium Periodate 7790-28-5	None	None	None	None

**Canada**

Components	Alberta	British Columbia	Ontario	Quebec
Sodium Periodate 7790-28-5	None	None	None	None

**Australia and Mexico**

Components	Australia	Mexico
Sodium Periodate 7790-28-5	None	None

**Appropriate engineering controls**

**Engineering measures to reduce exposure:**

Ensure adequate ventilation, especially in confined areas. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

- Eye protection:** Goggles
- Skin and body protection:** Chemical resistant apron. Gloves. Long sleeved clothing.
- Respiratory protection:** Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. .
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystals. Granular.	<b>Color:</b> White to yellowish.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available	<b>Formula:</b> NaIO <sub>4</sub>
<b>Molecular/Formula weight:</b> 213.89 g/mol	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> 262°C/504°F	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>pH:</b> No information available	<b>Melting point/range(°C/°F):</b> 300°C/571°F (dec)
<b>Decomposition temperature(°C/°F):</b> No information available	<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available
<b>Density (g/cm<sup>3</sup>):</b> 3.860	<b>Specific gravity:</b> 3.865	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> No information available	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Soluble in Water Soluble in Sulfuric acid Soluble in Nitric acid Soluble in Acetic acid	

## 10. STABILITY AND REACTIVITY

### Reactivity

Oxidizer. Reacts with reducing agents, organic material, combustible materials, and powdered metals

### Chemical stability

**Stability:** Stable under recommended storage conditions

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Incompatible materials. Avoid dust formation. Exposure to water. Exposure to moisture. Contact with combustible materials (wood, paper, oil, clothing, etc.). Contact with finely divided (powdered) metals.

**Incompatible Materials:** Reducing agents. Powdered metals. Combustible materials. Organic materials.

**Hazardous decomposition products:** When heated to decomposition it emits toxic fumes. Hydrogen iodide. Sodium oxides.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

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**Product name:** SODIUM PERIODATE,  
GRANULAR, REAGENT, ACS

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## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Principal Routes of Exposure:

Ingestion. Inhalation.

### Acute Toxicity

#### Component Information

*Sodium Periodate - 7790-28-5*

**LD50/oral/rat** = 264 mg/kg oral LD50 rat  
**LD50/oral/mouse** = No information available  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = 58 mg/kg intraperitoneal LD50 mouse

#### Product Information

**LD50/oral/rat** =  
**VALUE- Acute Tox Oral** = No information available

**LD50/oral/mouse** =  
**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal** = No information available

**LD50/dermal/rat**  
**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**  
**VALUE-Vapor** = No information available  
**VALUE-Gas** = No information available  
**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**  
**VALUE-Vapor** = No information available  
**VALUE - Gas** = No information available  
**VALUE - Dust/Mist** = No information available

### Symptoms

**Skin Contact:** Causes skin irritation.

**Eye Contact:** Causes serious eye irritation. Eye contact may result in redness or pain.

**Inhalation** Irritating to respiratory system. Symptoms may include coughing and wheezing, and shortness of breath.

**Ingestion** May cause digestive (gastrointestinal) tract irritation. May cause upset stomach. May cause abdominal pain, nausea, vomiting, diarrhea. It may affect the kidneys and liver.

**Aspiration hazard** No information available

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## Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** Repeated ingestions may cause kidney dysfunction or failure and blood conditions such as hemolysis.  
Prolonged or repeated ingestion may affect behavior/central nervous system  
Possible irritation or reddening of moist skin on prolonged contact

**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Sodium Periodate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

### Specific Target Organ Toxicity

**STOT - single exposure** Respiratory system.

**STOT - repeated exposure** No information available

**Target Organs:** No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity effects:** Aquatic environment.

*Sodium Periodate - 7790-28-5*

**Freshwater Fish Species Data:** > 0.17 mg/L LC50 *Oncorhynchus mykiss* 96h semi-static

**Water Flea Data:** 0.18 mg/L EC50 *Daphnia magna* 48h static

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods



### 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Sodium Periodate	None	None	None	None

### 14. TRANSPORT INFORMATION

**DOT**

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s. (sodium periodate)  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG No:** 140  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available  
**Special Provisions:** No Information available  
**Symbol(s):** G

**TDG (Canada)**

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No Information available

**ADR**

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Packing Group:** III  
**Subsidiary Risk:** No information available

**IMO / IMDG**

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant:** No information available  
**EMS:** F-A

**RID**

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III

## 14. TRANSPORT INFORMATION

### ICAO

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III

### IATA

**UN-No:** UN1479  
**Proper Shipping Name:** Oxidizing solid, n.o.s.  
**Hazard Class:** 5.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**ERG Code:** 5L  
**Special Provisions:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Sodium Periodate	Present	Present KE-31572	Present	Present (1)-444	Present	Present	Present 232-197-6

### U.S. Regulations

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

##### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

##### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Sodium Periodate	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
Sodium Periodate	None	None	None	None	None

### U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Sodium Periodate	Not Applicable	Not Applicable

### Canada

#### WHMIS hazard class:

C Oxidizing materials

Product code: S1381

Product name: SODIUM PERIODATE,  
GRANULAR, REAGENT, ACS

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**Sodium Periodate**

C

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
Sodium Periodate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances
Sodium Periodate	Not listed

Components	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Sodium Periodate	Not listed

**EU Classification****R-phrase(s)**

R 8 - Contact with combustible material may cause fire.  
 R22 - Harmful if swallowed.  
 R36/37/38 - Irritating to eyes, respiratory system and skin.

**S -phrase(s)**

S17 - Keep away from combustible material.  
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
Sodium Periodate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

O - Oxidising.  
 Xn - Harmful.  
 Xi - Irritant.

**16. OTHER INFORMATION**

## 16. OTHER INFORMATION

**Preparation Date:** 8/25/2015  
**Revision Date:** 8/25/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**