



SODIUM PERIODATE META CAS No.7790-28-5

1. Product Identification

Synonyms: Sodium metaperiodate; periodic acid, sodium salt

CAS No.: 7790-28-5

Molecular Weight: 213.89

Chemical Formula: NaIO₄

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Hazardous		
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Sodium Periodate meta	7790-28-5	90 - 100%
Yes		

3. Hazards Identification

Emergency Overview

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. MAY BE HARMFUL IF SWALLOWED. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER

AND KIDNEYS. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate (Life)

Flammability Rating: 0 - None

Reactivity Rating: 3 - Severe (Oxidizer)

Contact Rating: 2 - Moderate

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON;
VENT HOOD; PROPER GLOVES

Storage Color Code: Yellow (Reactive)

Potential Health Effects

Inhalation:

May irritate the respiratory tract, with symptoms of coughing and possible shortness of breath.

Ingestion:

May cause gastrointestinal upset with symptoms of abdominal pain, vomiting, and diarrhea. Animal experiments suggest a potential for kidney and blood cell damage, similar to that of the bromates and chlorates.

Skin Contact:

Possible irritation or reddening of moist skin on prolonged contact.

Eye Contact:

May cause irritation, redness and pain.

Chronic Exposure:

Repeated ingestions may cause kidney dysfunction or failure and blood conditions such as hemolysis. Central nervous system may be affected.

Aggravation of Pre-existing Conditions:

Persons with impaired liver or kidney function may be more susceptible to the effects of this substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire:

Not combustible but enhances the combustion of other substances. Strong oxidizing agent, can release gaseous oxygen when heated.

Explosion:

May explode when exposed to mechanical shock or friction or can cause explosions with combustible materials. Sensitive to mechanical impact.

Fire Extinguishing Media:

Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container. Dike and cover spill with ferrous sulfate, sodium sulfite or sodium thiosulfate, then moisten and acidify, if necessary, to promote the reduction reaction. Neutralize slurry with soda ash.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage and moisture. Isolate from any source of heat or ignition. Avoid storage on wood floors. Separate from incompatibles, combustibles, organic or other readily oxidizable materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Colorless crystals.

Odor:

Odorless.

Solubility:

14.4 g/100 g water @ 25C (77F)

Density:

3.8

pH:

No information found.

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

Not applicable.

Melting Point:

300C (572F) Decomposes.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

No information found.

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Strong oxidizing characteristics appear when mixed with acid solutions.

Hazardous Decomposition Products:

Oxides of the contained metal and halogen, possibly also free, or ionic halogen.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Substance may react violently with some organic compounds or reducing agents, finely-divided aluminum or magnesium metal, hydrides, strong reducing agents, ammonium perchlorate.

Conditions to Avoid:

Heat, flame, ignition sources, shock, friction, incompatibles.

11. Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

Ingredient Category	---NTP Carcinogen---		IARC
	Known	Anticipated	
Sodium Periodate meta (7790-28-5) None	No	No	

12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: OXIDIZING SOLID, N.O.S. (SODIUM META-PERIODATE)

Hazard Class: 5.1

UN/NA: UN1479

Packing Group: II

Information reported for product/size: 500G

International (Water, I.M.O.)

Proper Shipping Name: OXIDIZING SOLID, N.O.S. (SODIUM META-PERIODATE)

Hazard Class: 5.1

UN/NA: UN1479

Packing Group: II

Information reported for product/size: 500G

15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
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Ingredient                                TSCA  EC   Japan
Australia
-----
Sodium Periodate meta (7790-28-5)        Yes  Yes  Yes
Yes
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-----\Chemical Inventory Status - Part 2\-----
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Ingredient                                Korea  --Canada--
Phil.                                     DSL   NDSL
-----
Sodium Periodate meta (7790-28-5)        Yes   Yes  No
Yes
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-----\Federal, State & International Regulations - Part 1\-----
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313-----
Ingredient                                -SARA 302-  -----SARA
Chemical Catg.                            RQ      TPQ     List
-----
Sodium Periodate meta (7790-28-5)        No      No      No
No
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-----\Federal, State & International Regulations - Part 2\-----
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TSCA-                                     -RCRA-    -
Ingredient                                CERCLA    261.33    8(d)
-----
Sodium Periodate meta (7790-28-5)        No        No        No
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Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
Reactivity: Yes (Pure / Solid)

Australian Hazchem Code: 1WE

Poison Schedule: None allocated.

WHMIS:

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

16. Other Information

NFPA Ratings: Health: **1** Flammability: **0** Reactivity: **3** Other: **Oxidizer**

Label Hazard Warning:

DANGER! STRONG OXIDIZER. CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE. MAY BE HARMFUL IF SWALLOWED. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

Label Precautions:

Keep from contact with clothing and other combustible materials.

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Store in a tightly closed container.

Remove and wash contaminated clothing promptly.

Wash thoroughly after handling.

Label First Aid:

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. In all cases, get medical attention.

Product Use:

Laboratory Reagent.

Revision Information:

MSDS Section(s) changed since last revision of document include: 3.

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