

SODIUM PERIODATE META ACS

Safety Data Sheet

Emergency Telephone Number: CHEMTREC 1-800-424-9300

For Information call: DUDLEY 732-886-3100

DUDLEY CORPORATION

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Lakewood, New Jersey 08701

Effective Date: January 9, 2013

1. PRODUCT IDENTIFICATION:

Synonyms: Sodium metaperiodate; periodic acid, sodium salt.

CAS No.: 7790-28-5

Molecular Weight: 213.89

Chemical Formula: NaIO₄

2. HAZARDS IDENTIFICATION:

Appearance: White crystalline powder. **DANGER! STRONG OXIDIZER.** May be harmful if swallowed, inhaled, or absorbed through the skin. Affects central nervous system, liver and kidneys. Causes irritation to skin, eyes, and respiratory tract.

Target Organs: Respiratory system, eyes, skin.

GHS Classification: Oxidizing solids (Category 2) Acute toxicity, Oral (Category 3)
Skin irritation (Category 2) Eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3)



Signal Word: **DANGER**

Hazard statement(s)

- H272 May intensify fire; oxidizer.
- H301 Toxic if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

Precautionary statement(s)

- P220 Keep/Store away from clothing/ combustible materials.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P301 + P310 **IF SWALLOWED:** Immediately call a **POISON CENTER**
- P305 + P351 + P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS CLASSIFICATION

Health hazard: 2
Flammability: 0
Physical hazards: 2

NFPA RATING

Health hazard: 2
Fire: 0
Reactivity hazard: 2
Special hazard: OX

Potential 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: Prolonged or repeated skin contact may cause dermatitis.

Aggravation of Pre-existing Conditions: Persons with impaired liver or kidney function may be more susceptible to the effects of this substance.

3. COMPOSITION / INFORMATION ON INGREDIENTS:

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Percent</u>	<u>Hazardous</u>
Sodium Periodate Meta	7790-28-5	90-100%	Yes

4. FIRST AID MEASURES: Bring this data sheet to the physician.

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:

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Contact with other material may cause fire.

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

6. ACCIDENTAL RELEASE MEASURES:

General Information: Use proper personal protective equipment as indicated 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. **Do not let product enter drains.**

7. HANDLING AND STORAGE:

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Minimize dust generation and accumulation. Keep from contact with other combustible materials.

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. Light Sensitive, Hygroscopic.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<u>Chemical Name</u>	<u>ACGIH</u>	<u>NIOSH</u>	<u>OSHA-Final PEL's</u>
Sodium metaperiodate	None listed	None listed	None listed

OSHA Vacated PELs: Sodium metaperiodate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulation in 29 CFR 1910.133 or European Standard EN166

Skin: Wear protective gloves and clean body-covering clothing.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: White crystalline powder. **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. **Flash Point:** Not applicable.
Auto-ignition Temperature: Not available. **Explosion Limits, Lower/Upper:** Not available.
NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0; Special Hazard: OX

10. STABILITY AND REACTIVITY:

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

Conditions to Avoid: Heat, flames, ignition sources, shock, friction exposure to light and incompatibles.

Incompatibilities with Other Materials: Strong reducing agents, combustible material, forms of shock-sensitive mixtures with certain other materials, powdered metals, magnesium, organic materials.

Hazardous Decomposition Products: Hydrogen iodide, sodium oxide, iodine/oxides.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION:

RTECS#: CAS#7790-28-5: SD4550000

LD50/LC50: Oral - rat - 264 mg/kg

Carcinogenicity: CAS#7790-28-5: Not listed by ACGIH, IARC, NIOSH, NTP or OSHA.

Epidemiology: No data available.

Teratogenicity: No information available.

Reproductive Effects: No information available. **Neurotoxicity:** No data available.

Mutagenicity: No data available.

Other Studies:

12. ECOLOGICAL INFORMATION:

Environmental Fate: No information found.

Environmental Toxicity: No information found.

13. DISPOSAL CONSIDERATIONS:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classifications determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Contact a licensed professional waste disposal service to dispose of the material.

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

14. TRANSPORT REGULATIONS:

DOT: UN 3087, Oxidizing solid, toxic, n.o.s., (Sodium periodate), 5.1, (6.1), PG II, ERG 141

IMDG: UN 3087, OXIDIZING SOLID, TOXIC, N.O.S., (Sodium periodate), 5.1, (6.1), PG II

IATA: UN 3087, Oxidizing solid, toxic, n.o.s., (Sodium periodate), 5.1, (6.1), PG II

15. REGULATORY INFORMATION:

US FEDERAL TSCA

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

Health & Safety Reporting List: None of the chemicals are 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 are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances & corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

SARA Codes: CAS#7790-28-5: Acute

Section 313: No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. The material does not contain any Class I Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are 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 are considered highly hazardous by OSHA.

STATE: CAS#7790-28-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

Hazard Symbols: XN O

Hazard Statement(s): H315 Causes skin irritation H335 May cause respiratory irritation
H319 Causes eye irritation H301 Toxic if swallowed H272 May intensify

fire;oxidizer

Precautionary Statement(s): P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P280: Wear protective gloves/protective clothing/eye protection/face protection

P305 +P351 + P338: IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P301+P312: IF SWALLOWED Call a POISON CENTER or doctor if feeling unwell.

P210 Keep away from heat/sparks/open flames/ hot surfaces – No smoking

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 8 Contact with combustible material may cause a fire.

Safety Phrases:

S 17 Keep away from combustible material

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection): CAS#7790-28-5: 1

Canada – DSL/NDL CAS#7790-28-5 is listed on Canada’s DSL List.

Canada – WHMIS This product has a WHMIS classification of C.

CAS#7790-28-5 is not listed on Canada’s Ingredient Disclosure List.

Exposure Limits

Product Use: Laboratory Reagent.

16. DISCLAIMER INFORMATION:

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