1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium iodate
Product Number: S4007
Brand: Aldrich
Supplier: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052
Emergency Phone #: (314) 776-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Oxidizer, Target Organ Effect, Harmful by ingestion, Skin and respiratory sensitizer

Target Organs
Thyroid, Blood, Bone marrow

GHS Classification
Oxidizing solids (Category 2)
Acute toxicity, Oral (Category 4)
Respiratory sensitization (Category 1)
Skin sensitization (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word: Danger

Hazard statement(s)
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement(s)
P220 Keep/Store away from clothing/ combustible materials.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

HMIS Classification
Health hazard: 2
Chronic Health Hazard: *
Flammability: 0  
Physical hazards: 2  
NFPA Rating  
  Health hazard: 1  
  Fire: 0  
  Reactivity Hazard: 2  
  Special hazard: OX  

Potential Health Effects  
  Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  
  Skin: Harmful if absorbed through skin. May cause skin irritation.  
  Eyes: May cause eye irritation.  
  Ingestion: Harmful if swallowed.  

3. COMPOSITION/INFORMATION ON INGREDIENTS  
Formula: INaO₃  
Molecular Weight: 197.89 g/mol  

<table>
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<tr>
<td>EC-No.</td>
<td>231-672-5</td>
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4. FIRST AID MEASURES  
General advice  
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.  

If inhaled  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  

In case of skin contact  
Wash off with soap and plenty of water. Consult a physician.  

In case of eye contact  
Flush eyes with water as a precaution.  

If swallowed  
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  

5. FIREFIGHTING MEASURES  
Conditions of flammability  
Not flammable or combustible.  

Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  

Special protective equipment for firefighters  
Wear self contained breathing apparatus for fire fighting if necessary.  

Hazardous combustion products  
Hazardous decomposition products formed under fire conditions. - Hydrogen iodide, Sodium oxides  

Further information  
Use water spray to cool unopened containers.  

6. ACCIDENTAL RELEASE MEASURES  
Personal precautions  
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions
Do not let product enter drains.

Methods and materials for containment and cleaning up
Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Air, light, and moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 480 min
Material tested:Dermatril® (Aldrich Z677272, Size M)

Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 30 min
Material tested:Dermatril® (Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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
Form solid
Colour no data available

Safety data
pH 5.5 - 7.0 at 19.8 g/l at 25 °C (77 °F)
Melting point/freezing point no data available
Boiling point no data available
Flash point not applicable
Ignition temperature no data available
Autoignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density 4.28 g/mL at 25 °C (77 °F)
Water solubility ca.19.8 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water no data available
Relative vapour density no data available
Odour no data available
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
no data available
Conditions to avoid
no data available
Materials to avoid
Strong reducing agents, Powdered metals, Incompatibility: mixtures of iodates with finely divided aluminum, arsenic, copper, carbon, phosphorous (red or white) sulfur; hydrides of alkali and alkaline earth metals; sulfides of antimony, arsenic, copper or tin, metal cyanides, thiocyanates or impure manganese dioxide may react violently or explosively, either spontaneously (especially in the presence of moisture) or on initiation by heat, friction impact, sparks, or addition of sulfuric acid
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Hydrogen iodide, Sodium oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
Acute toxicity

**Oral LD50**
LD50 Oral - mouse - 505 mg/kg

**Inhalation LC50**
no data available

**Dermal LD50**
no data available

**Other information on acute toxicity**
no data available

**Skin corrosion/irritation**
no data available

**Serious eye damage/eye irritation**
no data available

**Respiratory or skin sensitization**
May cause allergic respiratory and skin reactions

**Germ cell mutagenicity**
no data available

Carcinogenicity

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

**Teratogenicity**
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

- **Inhalation**: May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion**: Harmful if swallowed.
- **Skin**: Harmful if absorbed through skin. May cause skin irritation.
- **Eyes**: May cause eye irritation.

**Signs and Symptoms of Exposure**
Nausea, Vomiting, Diarrhoea, Rash, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Synergistic effects
no data available

Additional Information
RTECS: NN1400000

12. ECOLOGICAL INFORMATION

Toxicity
  Toxicity to fish  LC50 - Oncorhynchus mykiss (rainbow trout) - 220 mg/l - 96 h

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1479  Class: 5.1  Packing group: II
Proper shipping name: Oxidizing solid, n.o.s. (Sodium iodate)
Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 1479  Class: 5.1  Packing group: II  EMS-No: F-A, S-Q
Proper shipping name: OXIDIZING SOLID, N.O.S. (Sodium iodate)
Marine pollutant: No

IATA
UN number: 1479  Class: 5.1  Packing group: II
Proper shipping name: Oxidizing solid, n.o.s. (Sodium iodate)

15. REGULATORY INFORMATION

OSHA Hazards
Oxidizer, Target Organ Effect, Harmful by ingestion., Skin and respiratory sensitizer

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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