Material Safety Data Sheet
Sodium arsenite, powder, certified

ACC# 21360

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium arsenite, powder, certified

**Catalog Numbers:** S2251-100, S2251-500

**Synonyms:** Arsenenous acid, sodium salt; Sodium metaarsenite; Sodium arsenite; Sodium dioxoarsenate.

**Company Identification:**

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7784-46-5</td>
<td>Sodium arsenite</td>
<td>100</td>
<td>232-070-5</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white to gray white solid.

**Danger!** May be fatal if swallowed. May be fatal if absorbed through the skin. Harmful if inhaled. Contains inorganic arsenic. Causes eye, skin, and respiratory tract irritation. Cancer hazard.

**Target Organs:** Lungs, skin.

**Potential Health Effects**

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation. May be fatal if absorbed through the skin. Exposure to arsenic compounds may produce hyperpigmentation of the skin and hyperkeratoses of plantar and palmar surfaces as well as both primary irritation and sensitization types.

**Ingestion:** May be fatal if swallowed. Poison by ingestion. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. All soluble arsenic (As) compounds are considered to be poisonous to humans. Inorganic arsenic is more toxic than organic arsenic. Organic arsenic is excreted more rapidly than inorganic arsenic. Arsenic 5+ is excreted more rapidly than arsenic 3+.

**Inhalation:** Causes respiratory tract irritation. Inhalation of arsenic compounds may lead to irritation of
the respiratory tract and to possible nasal perforation. Long-term exposure to arsenic compounds may produce impairment of peripheral circulation.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis. Inorganic arsenic compounds may cause skin and lung cancers in humans.

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**Section 4 - First Aid Measures**

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

**Ingestion:** Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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

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**Section 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. Substance is noncombustible.

**Extinguishing Media:** Use agent most appropriate to extinguish fire.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** N/A

**Upper:** N/A

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 0

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**Section 6 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Evacuate unnecessary personnel. U.S. regulations require reporting spills and releases to soil, water and air in excess of reportable quantities. Do not let this chemical enter the environment.

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**Section 7 - Handling and Storage**

**Handling:** Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Use only with adequate ventilation or respiratory protection. Change contaminated clothing promptly. Do not take
working clothes home.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Store protected from moisture.

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**Section 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 general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. See 29CFR 1910.1018 for regulatory requirements pertaining to all occupational exposures to inorganic arsenic.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium arsenite</td>
<td>0.01 mg/m3 TWA (as As)</td>
<td>5 mg/m3 IDLH (as As)</td>
<td>10 æg/m3 TWA (as As) (listed under Arsenic, inorganic compounds). 5 æg/m3 Action Level (as As); 10 æg/m3 TWA (as As, Cancer hazard - see 29 CFR 19 10.1018, except Arsine) (listed under Arsenic, inorganic compounds).</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Sodium arsenite: 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 regulations in 29 CFR 1910.133 or European Standard EN166.

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

**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.

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**Section 9 - Physical and Chemical Properties**

**Physical State:** Solid

**Appearance:** white to gray white

**Odor:** odorless

**pH:** basic in solution

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not applicable.

**Evaporation Rate:** Not applicable.

**Viscosity:** Not applicable.

**Boiling Point:** Decomposes

**Freezing/Melting Point:** 615 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Soluble.

**Specific Gravity/Density:** 1.87

**Molecular Formula:** NaAsO2

**Molecular Weight:** 129.91
Section 10 - Stability and Reactivity

**Chemical Stability:** Stable. Absorbs carbon dioxide from the air.

**Conditions to Avoid:** Moisture, extreme temperatures.

**Incompatibilities with Other Materials:** Strong acids.

**Hazardous Decomposition Products:** Oxides of arsenic.

**Hazardous Polymerization:** Has not been reported

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Section 11 - Toxicological Information

**RTECS#:**

**CAS# 7784-46-5:** CG3675000

**LD50/LC50:**

**CAS# 7784-46-5:**
- Oral, rat: LD50 = 41 mg/kg;
- Skin, rat: LD50 = 150 mg/kg;

**Carcinogenicity:**

**CAS# 7784-46-5:**

- **ACGIH:** A1 - Confirmed Human Carcinogen (listed as 'Arsenic, inorganic compounds').
- **California:** carcinogen, initial date 2/27/87 (listed as Arsenic, inorganic compounds).
- **NTP:** Known carcinogen (listed as Arsenic, inorganic compounds).
- **IARC:** Group 1 carcinogen

**Epidemiology:** Epidemiological studies have demonstrated evidence of a causal relationship between environmental, occupational, and medicinal exposure of humans to inorganic arsenic and cancer of the skin and lungs.

**Teratogenicity:** Has caused teratogenic effects in animal studies.

**Reproductive Effects:** Can cause reproductive effects in animal studies.

**Mutagenicity:** See actual entry in RTECS for complete information.

**Neurotoxicity:** See actual entry in RTECS for complete information.

**Other Studies:**

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Section 12 - Ecological Information

**Ecotoxicity:** No data available. Arsenic compounds tend to be accumulated by oysters and other shellfish.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** May be toxic to aquatic organisms; May cause long-term adverse effects in the aquatic environment.

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Section 13 - Disposal Considerations
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification 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.

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

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

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shipping Name:</strong></td>
<td>SODIUM ARSENITE, SOLID</td>
<td>SODIUM ARSENITE, SOLID</td>
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<tr>
<td><strong>Hazard Class:</strong></td>
<td>6.1</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>UN Number:</strong></td>
<td>UN2027</td>
<td>UN2027</td>
</tr>
<tr>
<td><strong>Packing Group:</strong></td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>

### Section 15 - Regulatory Information

#### US FEDERAL

**TSCA**
- CAS# 7784-46-5 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 and corresponding RQs**
- CAS# 7784-46-5: 1 lb final RQ; 0.454 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**
- CAS# 7784-46-5: 500 lb lower threshold TPQ; 10000 lb upper threshold TPQ

**SARA Codes**
- CAS # 7784-46-5: immediate, delayed.

**Section 313**
- This material contains Sodium arsenite (listed as Arsenic, inorganic compounds), 100%, (CAS# 7784-46-5) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**
- CAS# 7784-46-5 (listed as Arsenic, inorganic compounds) is listed as a hazardous air pollutant (HAP).
  - This material does not contain any Class 1 Ozone depletors.
  - This material does not contain any Class 2 Ozone depletors.

**Clean Water Act:**
- CAS# 7784-46-5 is listed as a Hazardous Substance under the CWA.
  - None of the chemicals in this product are listed as Priority Pollutants under the CWA. CAS# 7784-46-5
is listed as a Toxic Pollutant under the Clean Water Act.

**OSHA:**
None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**
CAS# 7784-46-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, (listed as Arsenic, inorganic compounds), Massachusetts.

**California Prop 65**
The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:
WARNING: This product contains Sodium arsenite, listed as `Arsenic, inorganic compounds', a chemical known to the state of California to cause cancer.
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:**
T N

**Risk Phrases:**
R 23/25 Toxic by inhalation and if swallowed.
R 45 May cause cancer.
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**
S 20/21 When using do not eat, drink or smoke.
S 28 After contact with skin, wash immediately with...
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

**WGK (Water Danger/Protection)**
CAS# 7784-46-5: 3

**Canada - DSL/NDSL**
CAS# 7784-46-5 is listed on Canada's DSL List.

**Canada - WHMIS**
This product has a WHMIS classification of D1A, D2A, D2B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**
CAS# 7784-46-5 is listed on the Canadian Ingredient Disclosure List.

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**Section 16 - Additional Information**

**MSDS Creation Date:** 8/05/1998
**Revision #9 Date:** 2/13/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability.
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