Material Safety Data Sheet
Sodium bismuthate(V)

ACC# 37093

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Sodium bismuthate(V)

**Catalog Numbers:** AC205210000, AC205210250, AC205212500, S75206

**Synonyms:** BiNaO₃. (The bismuthate of commerce contains about 85% NaBiO₃; the balance is chiefly water and Bi₂O₃.)

**Company Identification:**
Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 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>12232-99-4</td>
<td>Sodium bismuthate(V)</td>
<td>85</td>
<td>235-455-6</td>
</tr>
<tr>
<td>1304-76-3</td>
<td>Bismuth oxide (Bi₂O₃)</td>
<td>&lt;15</td>
<td>215-134-7</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>&lt;15</td>
<td>231-791-2</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: yellow to brown powder.

**Warning!** Harmful if swallowed. May cause eye, skin, and respiratory tract irritation. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

**Target Organs:** No data found.

**Potential Health Effects**

**Eye:** Dust may cause mechanical irritation.

**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** Harmful if swallowed. May cause irritation of the digestive tract.

**Inhalation:** May be harmful if inhaled. Inhalation of dust may cause respiratory tract irritation.

**Chronic:** May cause appetite loss, diarrhea, skin abnormalities, and digestive tract disturbances.

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, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**Ingestion:** 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:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** Treat symptomatically and supportively.
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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Decomposes at high temperatures releasing oxygen which may cause an existing fire to burn more vigorously.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture.

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 ventilation to keep airborne concentrations low.

**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 bismuthate(V)</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Bismuth oxide (Bi2O3)</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Water</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Sodium bismuthate(V): No OSHA Vacated PELs are listed for this chemical. Bismuth oxide (Bi2O3): No OSHA Vacated PELs are listed for this chemical. Water: 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.
Section 9 - Physical and Chemical Properties

Physical State: Powder
Appearance: yellow to brown
Odor: None reported.
pH: 10 @ 5% aq. sol.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: Not available.
Decomposition Temperature: Not available.
Solubility: insoluble in cold, dec by hot
Specific Gravity/Density: Not available.
Molecular Formula: BiNaO3
Molecular Weight: 279.96

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, dust generation, excess heat, exposure to moist air or water.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Toxic fumes of sodium oxide, bismuth oxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 12232-99-4: VZ1750000
CAS# 1304-76-3: EB2984460
CAS# 7732-18-5: ZC0110000
LD50/LC50:
CAS# 12232-99-4:
  Oral, rat: LD50 = 420 mg/kg;

CAS# 1304-76-3:
  Oral, mouse: LD50 = 10 gm/kg;
  Oral, rat: LD50 = 5000 mg/kg;

CAS# 7732-18-5:
  Oral, rat: LD50 = >90 mL/kg;

Carcinogenicity:
CAS# 12232-99-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 1304-76-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: See actual entry in RTECS for complete information.
Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

No information available.

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>Shipping Name:</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN Number:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA
- CAS# 12232-99-4 is listed on the TSCA inventory.
- CAS# 1304-76-3 is listed on the TSCA inventory.
- CAS# 7732-18-5 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
- 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 # 1304-76-3: immediate.

Section 313
- No chemicals are reportable under Section 313.

Clean Air Act:
- This material does not contain any hazardous air pollutants.
- This material does not contain any Class 1 Ozone depletors.
- This material does not contain any Class 2 Ozone depletors.

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# 12232-99-4 is not present on state lists from CA, PA, MN, MA, FL, or NJ.  
CAS# 1304-76-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.  
CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65  
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  
Risk Phrases:  
R 22 Harmful if swallowed.  
Safety Phrases:  

WGK (Water Danger/Protection)  
CAS# 12232-99-4: No information available.  
CAS# 1304-76-3: 1  
CAS# 7732-18-5: No information available.  

Canada - DSL/NDSL  
CAS# 12232-99-4 is listed on Canada's DSL List.  
CAS# 1304-76-3 is listed on Canada's DSL List.  
CAS# 7732-18-5 is listed on Canada's DSL List.  

Canada - WHMIS  
This product has a WHMIS classification of D1B. 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  

Section 16 - Additional Information  

MSDS Creation Date: 2/25/1998  
Revision #5 Date: 11/30/2006  

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 resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, however arising, even if Fisher has been advised of the possibility of such damages.