Material Safety Data Sheet
Antimony Trichloride

ACC# 01750

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Antimony Trichloride  
**Catalog Numbers:** S70995, A853-100, A853-500  
**Synonyms:** Trichlorostibine; Antimonous chloride; Antimony(III) chloride; Antimony trichloride.  
**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>10025-91-9</td>
<td>Antimony trichloride</td>
<td>&gt;99</td>
<td>233-047-2</td>
</tr>
</tbody>
</table>

**Hazard Symbols:** C N  
**Risk Phrases:** 34

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

**Target Organs:** Lungs, cardiovascular system, eyes, skin, mucous membranes.

**Potential Health Effects**

**Eye:** Causes eye burns.  
**Skin:** Causes skin burns.  
**Ingestion:** Causes gastrointestinal tract burns. May be harmful if swallowed.  
**Inhalation:** Causes chemical burns to the respiratory tract. May cause lung damage. May produce cardiovascular effects.  
**Chronic:** Chronic exposure may cause liver damage.

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 immediately.

**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:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

**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.

### 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. May react with metals and lead to the formation of flammable hydrogen gas. Substance may react with water, and may release corrosive and/or toxic gases.

**Extinguishing Media:** Do NOT get water inside containers. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water. For small fires, use carbon dioxide, dry chemical, dry sand, or alcohol-resistant foam. Most foams will react with the material and release corrosive/toxic gases. Cool containers with flooding quantities of water until well after fire is out.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not available.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; Instability: 1; Special Hazard: -W-

### 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. Avoid generating dusty conditions. Provide ventilation. Do not get water inside containers. A vapor suppressing foam may be used to reduce vapors.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Keep away from metals. Corrosives area. Keep containers tightly closed.

### Section 8 - Exposure Controls, Personal Protection
**Engineering Controls:** Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**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>Antimony trichloride</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Antimony trichloride: 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. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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**Section 9 - Physical and Chemical Properties**

- **Physical State:** Solid
- **Appearance:** white
- **Odor:** pungent odor
- **pH:** Not available.
- **Vapor Pressure:** 1 mm Hg @ 49.2C
- **Vapor Density:** 7.9
- **Evaporation Rate:** Not available.
- **Viscosity:** Not available.
- **Boiling Point:** 223 deg C
- **Freezing/Melting Point:** 73 deg C
- **Decomposition Temperature:** Not available.
- **Solubility:** soluble (but hydrolysis to SbOCl)
- **Specific Gravity/Density:** 3.14
- **Molecular Formula:** SbCl₃
- **Molecular Weight:** 228.11

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**Section 10 - Stability and Reactivity**

- **Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.
- **Conditions to Avoid:** Dust generation, exposure to moist air or water.
- **Incompatibilities with Other Materials:** Incompatible with aluminum, potassium and sodium, perchloric acid.
- **Hazardous Decomposition Products:** Hydrogen chloride, chlorine, irritating and toxic fumes and gases, antimony/antimony oxides.
- **Hazardous Polymerization:** Has not been reported.

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**Section 11 - Toxicological Information**
RTECS#:  
CAS# 10025-91-9: CC4900000
LD50/LC50:  
CAS# 10025-91-9:  
Oral, rat: LD50 = 525 mg/kg;
Carcinogenicity:  
CAS# 10025-91-9: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information found.
Teratogenicity: No information available.
Reproductive Effects: See actual entry in RTECS for complete information.
 Neurotoxicity: No information available.
Mutagenicity: Laboratory experiments have shown mutagenic effects.
Other Studies: See actual entry in RTECS for complete information.

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>US DOT</th>
<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
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<tr>
<td>Shipping Name:</td>
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<tr>
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<tr>
<td>UN Number:</td>
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<td>Packing Group:</td>
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No information available.

Section 15 - Regulatory Information

US FEDERAL

TSCA  
CAS# 10025-91-9 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.

**SARA**

**CERCLA Hazardous Substances and corresponding RQs**
CAS# 10025-91-9: 1000 lb final RQ; 454 kg final RQ

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

**SARA Codes**
CAS # 10025-91-9: acute, chronic, reactive.

**Section 313**
This material contains Antimony trichloride (listed as Antimony), 99%, (CAS# 10025-91-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**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:**
CAS# 10025-91-9 is listed as a Hazardous Substance 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# 10025-91-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.
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:**
C N

**Risk Phrases:**
R 34 Causes burns.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases:**
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**WGK (Water Danger/Protection)**
CAS# 10025-91-9: 2

**Canada - DSL/NDSL**
CAS# 10025-91-9 is listed on Canada's DSL List.

**Canada - WHMIS**
This product has a WHMIS classification of E.
Canadian Ingredient Disclosure List
CAS# 10025-91-9 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits
CAS# 10025-91-9: OEL-ARAB Republic of Egypt: TWA 0.5 mg(Sb)/m3 OEL-AUSTRIA: TWA 0.5 mg(Sb)/m3 OEL-BELGIUM: TWA 0.5 mg(Sb)/m3 OEL-CZECHOSLOVAKIA: TWA 0.5 mg(Sb)/m3; STEL 2.5 mg(Sb)/m3 OEL-DENMARK: TWA 0.5 mg(Sb)/m3 OEL-FINLAND: TWA (0.5 mg(Sb)/m3) OEL-FRANCE: TWA 0.5 mg(Sb)/m3 OEL-GERMANY: TWA 0.5 mg(Sb)/m3 (total dust) OEL-HUNGARY: STEL 0.5 mg(Sb)/m3 OEL-THE NETHERLANDS: TWA 0.5 mg(Sb)/m3 OEL-POLAND: TWA 0.5 mg(Sb)/m3 OEL- RUSSIA: STEL 0.3 mg/m3 OEL- RUSSIA: TWA 0.2 mg(Sb)/m3; STEL 0.5 mg(Sb)/m3 OEL- SWEDEN: TWA 0.5 mg(Sb)/m3 OEL-SWITZERLAND: TWA 0.5 mg(Sb)/m3 OEL-TURKEY: TWA 0.5 mg(Sb)/m3 OEL-UNITED KINGDOM: TWA 0.5 mg(Sb)/m3 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 3/11/1999
Revision #4 Date: 5/29/2002

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, howsoever arising, even if Fisher has been advised of the possibility of such damages.