Section 1 - Chemical Product and Company Identification

MSDS Name: Antimony trioxide
Catalog Numbers: AC192460000, AC192460100, AC192460500, AC213470000, AC213470010, AC213470050, AC213470050, AC213471000, A860-100, A860-500
Synonyms: Antimonious oxide; Antimony peroxide; Flowers of antimony.

Company Identification:
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 1309-64-4
Chemical Name: Antimony trioxide
%: 99-100
EINECS#: 215-175-0

Hazard Symbols: XN
Risk Phrases: 40

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Warning! Causes eye irritation. May cause lung damage. May cause skin and respiratory tract irritation. Possible cancer hazard. May cause cancer based on animal data. Risk of cancer depends on duration and level of exposure. Target Organs: Lungs, eyes, skin.

Potential Health Effects
Eye: Contact produces irritation, tearing, and burning pain. May cause chemical conjunctivitis.
Skin: May cause skin irritation. Repeated or prolonged skin contact may cause antimony measles characterized by itchy papules and pustules around the sweat and fat glands.
Ingestion: May cause irritation of the digestive tract. May cause slow pulse, low blood pressure, bloody stool, shallow breathing, coma, convulsions, and possible death.
Inhalation: with metallic taste, fever, chills, cough, weakness, chest pain, muscle pain and increased white blood cell count. May cause lung damage. Antimony compounds may enter the body through the lungs. Inhalation may produce severe bronchitis with spasms, coughing, and chest pain.
Chronic: Possible cancer hazard based on tests with laboratory animals. Prolonged inhalation may cause respiratory tract inflammation and lung damage. Prolonged or repeated skin contact may cause dermatitis. Laboratory experiments have resulted in mutagenic effects. May cause chronic heart disease due to effects on the heart muscle. This substance has caused adverse reproductive and fetal effects in laboratory animals.

Section 4 - First Aid Measures
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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: The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

Antidote: The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

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. Use water spray to keep fire-exposed containers cool. Powder ignites and burns when heated. Containers may explode when heated.

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

Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
NFPA Rating: health: 2; flammability: 1; instability: 0;

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. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Use only in a chemical fume hood.

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

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
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<tr>
<td>Antimony trioxide</td>
<td>0.5 mg/m3 TWA</td>
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OSHA Vacated PELs: Antimony trioxide: 0.5 mg/m3 TWA (listed under Antimony)

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.

Exposure Limits
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.

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
Color: white
Odor: odorless
pH: Amphoteric.
Vapor Pressure: 1 mm Hg @ 574 deg C
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 1456 deg C @ 760 mmHg (2,652.80°F)
Freezing/Melting Point: 656.1 deg C (1,212.98°F)
Decomposition Temperature: Not available
Solubility in water: Slightly soluble in water.
Specific Gravity/Density: 5.2
Molecular Formula: Sb2O3
Molecular Weight: 291.4182

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, excess heat, moisture, high humidity.

Incompatibilities with Other Materials: Oxidizing agents, reducing agents, strong acids, bases, bromine trifluoride, halogenated agents, chlorinated rubber, halogenated acids.

Hazardous Decomposition Products: Antimony/antimony oxides.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 1309-64-4: CC5650000 CC5720000

LD50/LC50: Draize test, rabbit, eye: 100 mg Mild; Oral, rat: LD50 = >34600 mg/kg;

Carcinogenicity: Antimony trioxide - ACGIH: A2 - Suspected Human Carcinogen (production) California: carcinogen, initial date 10/1/90 IARC: Group 2B carcinogen

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: 833mg/l; 96H; Not specified
Fish: Bluegill/Sunfish: 530mg/l; 96H; Not specified.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Not regulated as a hazardous material
Hazard Class: 
UN Number: 
Packing Group: 
Canada TDG 
Shipping Name: Not regulated as a hazardous material 

Hazard Class: 
UN Number: 
Packing Group: 

USA RQ: CAS# 1309-64-4: 1000 lb final RQ; 454 kg final RQ

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
  R 40 Limited evidence of a carcinogenic effect.
Safety Phrases:
  S 22 Do not breathe dust.
  S 36/37 Wear suitable protective clothing and gloves.

WGK (Water Danger/Protection)
CAS# 1309-64-4: 2

Canada
CAS# 1309-64-4 is listed on Canada's DSL List
Canadian WHMIS Classifications: D1B, D2A
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.
CAS# 1309-64-4 is listed on Canada's Ingredient Disclosure List

US Federal
TSCA
CAS# 1309-64-4 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 6/21/1999
Revision #9 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.