



# Safety Data Sheet

(Antimony Trioxide)

DATE PREPARED: 8/25/2014

REVISION NUMBER: 8/25/2014

## Section 1 – Company Information

**Parchem - fine & specialty chemicals**

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EMERGENCY RESPONSE NUMBER:

CHEMTEL - Parchem CCN# M1S0007152

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All other Origins: (813) 248-0585

Collect Calls Accepted

## Section 2 – Product Identification/ Information on Ingredients

PRODUCT NAME Antimony Trioxide

CAS NUMBER 1309-64-4

FORMULA  $Sb_2O_3$

PRODUCT	CAS NUMBER	% BY WEIGHT
Antimony Trioxide	1309-64-4	≥ 99.9% wt.
Arsenic (Trace Impurity)	7440-38-2	< 0.1% wt.

## Section 3 – Hazards Identification

### Potential Health Effects

**Eye Contact:** Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin Contact:** May cause skin irritation. Symptoms may include redness, burning, and swelling of skin. Additional symptoms of skin contact may include: antimony measles (a red, pimply rash). This material is unlikely to pass into the body through the skin.

**Ingestion:** Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

**Inhalation:** This material is a dust or may produce dust. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8). Prolonged or repeated breathing of dust may result in progressive and permanent lung disease (fibrosis) which may cause death from respiratory and/or heart failure. Symptoms include coughing and difficult breathing which becomes worse with physical activity.

**Symptoms of Exposure:** Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), effects on breathing rate.

**Target Organ Effects:** Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: cardiovascular effects, blood abnormalities, liver abnormalities, anemia, lung damage.



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**Developmental Information:** This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**Cancer Information:** This material (or a component) causes cancer in laboratory animals and therefore may present a carcinogenic risk to humans. This material (or a component) is listed as a carcinogen by the International Agency for Research on Cancer.

**Other Health Effects:** No data

**Primary Route(s) of Entry:** Inhalation, Skin contact, Eye contact.

### Section 4 – First Aid Measures

**Eye Contact:** If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin Contact:** Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion:** Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation:** If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

**Note to Physicians:** Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), liver. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease, or anemias.

### Section 5 – Fire Fighting Measures

**Flash Point:** Not applicable

**Explosive Limit:** Not applicable

**Auto-ignition Temperature:** No data

**Hazardous Products of Combustion:** Toxic fumes.

**Fire and Explosion Hazards:** No special fire hazards are known to be associated with this product.

**Extinguishing Media:** Use an extinguishing media appropriate for surrounding fire.

**Fire Fighting Instructions:** No special precautions necessary when fighting fires involving this product.



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### **NFPA Rating**

**Health:** 1

**Flammability:** 0

**Reactivity:** 0

### Section 6 – Accidental Release Measures

**Small Spill:** Collect material with vacuum cleaner.

**Large Spill:** Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Collect material with a vacuum cleaner.

### Section 7 – Handling & Storage

**Handling:** Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given *in* the data sheet must be observed.

### Section 8 – Exposure Controls & Personal Protection

**Eye Protection:** Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

**Skin Protection:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**Respiratory Protections:** If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

**Engineering Controls:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

### **Exposure Guidelines**

**Component:** Antimony Trioxide  
ACGIH TLV 0.500 mg/m<sup>3</sup> - TWA handling and use, as Sb

### Section 9 – Physical & Chemical Properties

**Boiling Point:** 1,425°C

**Melt Point:** 656°C

**Vapor Density:** Not applicable

**Specific Gravity (H<sub>2</sub>O = 1):** 5.2 - 5.7 g/cm<sup>3</sup>

**Solubility in H<sub>2</sub>O (25°C):** 0.001g/100 ml

**Liquid Density:** Not applicable



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**Percent Volatiles:** No data  
**Evaporation Rate:** Not applicable  
**Appearance:** No data  
**State:** Solid  
**Physical Form:** Powder  
**Color:** White  
**Odor:** Odorless  
**pH:** Not applicable

## Section 10 – Stability & Reactivity Data

**Hazardous Polymerization:** Product will not undergo hazardous polymerization.  
**Hazardous Decomposition:** Toxic fumes.  
**Chemical Stability:** Stable.  
**Incompatibility:** No data

## Section 11 – Toxicological Information

**Primary Routes of Entry:** Inhalation, ingestion, and eye and skin contact.  
**Symptoms and Effects of Overexposure:** This section offers effects of overexposure for inhalation, eye/skin contact, ingestion, and other types of overexposure information in the order of the most hazardous and most likely of entry.

### Toxicity Data

**LD50 - Dermal:** (Rabbit) > 2 g/kg  
**LD50 - Ingestion:** (Rats) > 34.6 g/kg  
**LC50 - Lethal Conc.:** (Fish) unknown

### Classification

**Skin:** Slight Irritation  
**Eyes:** Moderate Irritation  
Inhalation of the dust may cause irritation to the respiratory tract.

**Acute Effects from Exposure:** Prolonged or repeated skin contact causes irritation and red, pimply skin eruptions or lesions referred to as "antimony measles". Irritation is aggravated when skin surface is moist as when perspiring.

Chronic inhalation has resulted in benign pneumoconiosis.

A long-term inhalation study indicated commercial grade antimony oxide may have caused malignant lung tumors in laboratory rats. Also, may contain trace of amounts of arsenic, which is a cancer hazard.

**Medical Conditions Generally Aggravated by This Material:** As with any dust, an individual with chronic respiratory illness may experience difficulty when overexposed to dusts of this product.



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## Exposure Limits - Antimony Trioxide

**OSHA:** 0.5 mg/m<sup>3</sup> as Sb, 8-hour TWA (Time Weighted Average)

**ACGIH:** 0.5 mg/m<sup>3</sup> as Sb, 8-hour TWA (Time Weighted Average)

**Nuisance Dust Limits - OSHA:** 15 mg/m<sup>3</sup>; ACGIH 10mg/m<sup>3</sup>

## Section 12 – Ecological Information

No data available

## Section 13 – Disposal Consideration

Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

## Section 14 – Transportation Data

**Proper Shipping Name:** Environmentally hazardous substances, solid, n.o.s. (Antimony Trioxide)

**UN Number:** UN3077

**Hazard Class:** 9

**Packing Group:** PG III

### DOT Information- 49 CFR 172.101

**DOT Description:** Non-Regulated By DOT in containers less than 1,041 lbs. (see above information for containers of 1,041 lbs. or more).

**NOS Component:** Antimony Trioxide

### RQ (Reportable Quantity) - 49 CFR 172.101

**Product Quantity (lbs.):** 1000 lbs.

**Component:** Antimony Trioxide

## Section 15 – Regulatory Information

### US Federal Regulations

**TSCA (Toxic Substances Control Act) Status:** TSCA (UNITED STATES) The intentional ingredients of this product are listed.

### CERCLA RQ - 40 CFR 302.4(a)

**Component:** Antimony Trioxide

**RQ:** 1,000 lbs.

**SARA 302 Components - 40 CFR 355 Appendix A:** None



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## Section 311/312 Hazard Class - 40 CFR 370.2

**Immediate:** No

**Delayed:** Yes

**Fire:** No

**Reactive:** No

**Sudden Release of Pressure:** No

## SARA 313 Components - 40 CFR 372.65

**Section 313 Component(s):** Antimony Trioxide

**CAS Number:** 1309-64-4

**Percentage:** 100.00%

## International Regulations

**Inventory Status:** Not determined

## State and Local Regulations

**California Proposition 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer: Antimony Oxide (Antimony Trioxide)

**New Jersey RTK Label Information:** Antimony Trioxide - 1309-64-4

**Pennsylvania RTK Label Information:** Antimony Oxide ( $Sb_2O_3$ ) - 1309-64-4

## Section 16 – Other Information

### Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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