

**MATERIAL SAFETY DATA SHEET**



**AMSPEC  
CHEMICAL  
CORPORATION**

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New Jersey 08030  
USA

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Rev. date: October 25, 1999

**1 - PRODUCT IDENTIFICATION**

**Product Name:** Antimony Oxide (all grades)  
Syn: antimony trioxide, antimony(III) oxide

**Manufacturer:** AMSPEC CHEMICAL CORPORATION  
751 Water Street  
Gloucester City, NJ 08030 USA

**Emergency Contact:** (856) 456-3930 or (800) 526-7732  
Chemtrec: (800) 424-9300

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material or Component:	CAS No.	EINECS #	EU #	% composition
Antimony oxide	1309-64-4	2151750	051-005-00-X	99.9+%

FORMULA: Sb<sub>2</sub>O<sub>3</sub>

**3. HAZARDS IDENTIFICATION**

**Designation:**  
Harmful X<sub>n</sub>

**Risk Phrases:**  
R40 Possible risks of irreversible effects.

**WHMIS designation:**  
Class D division 2 - Materials causing other toxic effects.

**4. FIRST AID MEASURES:**

Immediately flush with water for at least 15 minutes. Get medical attention if irritation persists.  
Wash contaminated area with soapy warm water. Consult a physician if irritation develops or persists.

**Inhalation:** Remove to fresh air; if breathing is difficult, give oxygen. Consult a physician.  
**Ingestion:** Consult a physician immediately.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Product is not flammable. Use extinguishing agents suited to burning materials.

**Exposure Hazards:** When heated to decomposition, emits irritating fumes.

**Protective Equipment for Fire Fighting:** Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6. ACCIDENTAL RELEASE MEASURES

Wear an approved high-efficiency dust/fume respirator. If not contaminated, scoop up for reuse. If contaminated, scoop or vacuum into container for disposal. Avoid dusting. Dispose of empty containers in accordance with all applicable federal, state and local laws.

## 7. HANDLING AND STORAGE

Avoid dust formation. Wear gloves, long sleeved shirt, and eye protection. Do not eat, drink, or smoke in the workplace.

Store in well-ventilated dry area. Do not store in open, inadequate, or mislabeled packaging.

Store away from acids, alkalis and reducing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ventilation:** Local exhaust ventilation sufficient to maintain exposure levels below exposure limit concentrations.

Exposure Limits:	USA PEL:	EU:
Antimony oxide:	0.5 mg/m <sup>3</sup> , as Sb (TWA)	0.5 mg/m <sup>3</sup> , as Sb (TWA)

**Personal Protective Equipment:**

- Respiratory protection as needed.
- Safety glasses, goggles to prevent eye contact with product.
- Gloves; protective clothing as necessary to prevent skin contact.

**General Precautions:**

- Use only with adequate ventilation.
- Avoid breathing dusts.
- Avoid skin and eye contact.
- Wash thoroughly after handling, and before eating, drinking, smoking or hygiene activities.
- Keep containers closed.
- Change clothing before leaving the job-site, or if exposed to heavy dusts or spillage; clothing should be laundered before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 1425°C

MELTING POINT: 656°C

DENSITY: 52.-5.7 g/cm<sup>3</sup>

VAPOR PRESSURE: 0.406 mmHg at 550°C

VAPOR DENSITY (Air = 1): Not available.

SOLUBILITY IN H<sub>2</sub>O: .001g/100ml @25°C

APPEARANCE AND ODOR: White, crystalline powder; odorless.

OXIDIZING PROPERTIES: Not applicable.

AUTOFLAMMABILITY: Not applicable.

EXPLOSIVE PROPERTIES: Not applicable.

FLASH POINT: Not applicable.

IGNITION: Not applicable.

VISCOSITY: Not applicable.

## 10. STABILITY AND REACTIVITY

**Thermal Decomposition:** None expected.

**Conditions Contributing To Instability:** None expected

**Incompatibility:** Avoid contact with acids, bases, reducing agents; toxic products of reaction may be generated.

**Hazardous Decomposition Products:** None expected.

## 11. TOXICOLOGIC INFORMATION

### Toxicity Data:

LD <sub>50</sub> Dermal:	(rabbit)>2g/kg
LD <sub>50</sub> orl:	(Rat)!>34.6g/kg

**Primary Routes of Entry:** Inhalation, ingestion, eye and skin contact.

### Symptoms and Effects Of Overexposure:

Inhalation of the dust may cause irritation of the respiratory tract. May cause eye irritation and may be irritating to the skin of sensitive individuals. Prolonged or repeated skin contact causes skin 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. IARC cancer review: Group 2B. DFG MAK listed animal carcinogen, Suspected human carcinogen.

## 12. ECOLOGICAL INFORMATION

EC <sub>50</sub> -48h (Daphnia Magna)	>1000mg/l (Janssen Biotech 8/6/90)
LC <sub>50</sub> -96h (Brachydanio Rerio)	>1000mg/l (Janssen Biotech 8/6/90)

