Section 1 - Product and Company Information

Product Name: ANTIMONY(III) OXIDE, POWDER, <5 MICRON, 99%
Product Number: 230898
Brand: ALDRICH
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name: ANTIMONY (III) OXIDE
CAS #: 1309-64-4
SARA 313: Yes
Formula: Sb2O3
RTECS Number: CC5650000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Harmful.
Limited evidence of a carcinogenic effect.
Possible Carcinogen (US). Calif. Prop. 65 carcinogen.

HMIS RATING
HEALTH: 0*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING
HEALTH: 0
FLAMMABILITY: 0
REACTIVITY: 0
*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE
In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Do not get in eyes, on skin,
on clothing. Avoid prolonged or repeated exposure.

**STORAGE**

Suitable: Keep tightly closed. Store in a cool dry place.

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**Section 8 - Exposure Controls / PPE**

**ENGINEERING CONTROLS**

Use only in a chemical fume hood. Safety shower and eye bath.

**PERSONAL PROTECTIVE EQUIPMENT**

Respiratory: Government approved respirator in nonventilated areas and/or for exposure above the TLV or PEL.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

**GENERAL HYGIENE MEASURES**

Wash contaminated clothing before reuse. Wash thoroughly after handling.

**EXPOSURE LIMITS, RTECS**

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>ACGIH</td>
<td>TWA</td>
<td>0.5 MG(SB)/M3</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Sb2O3 handling/use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>OSHA</td>
<td>PEL</td>
<td>8H TWA 0.5 MG(SB)/M3</td>
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<tr>
<td>New Zealand</td>
<td>OEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks:</td>
<td>check ACGIH TLV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>NIOSH</td>
<td>TWA</td>
<td>0.5 MG(SB)/M3</td>
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</tbody>
</table>

---

**Section 9 - Physical/Chemical Properties**

**Appearance**

Physical State: Solid

**Property**

<table>
<thead>
<tr>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
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<td>Molecular Weight</td>
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<tr>
<td>pH</td>
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<tr>
<td>BP/BP Range</td>
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<tr>
<td>MP/MP Range</td>
<td>655 °C</td>
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<tr>
<td>Freezing Point</td>
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</tr>
<tr>
<td>Vapor Pressure</td>
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<tr>
<td>Vapor Density</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<td>SG/Density</td>
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<tr>
<td>Bulk Density</td>
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<tr>
<td>Odor Threshold</td>
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<td>Volatile%</td>
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<tr>
<td>Water Content</td>
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</tr>
<tr>
<td>Solvent Content</td>
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<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Surface Tension</td>
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<td>Partition Coefficient</td>
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<tr>
<td>Decomposition Temp.</td>
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<td>Flash Point</td>
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<td>Optical Rotation</td>
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<tr>
<td>Miscellaneous Data</td>
<td>N/A</td>
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</tbody>
</table>
Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Nature of decomposition products not known.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

TOXICITY DATA

Oral
Rat
> 34600 mg/kg
LD50
Skin and Appendages: Other: Hair.

Intraperitoneal
Rat
3250 MG/KG
LD50

Subcutaneous
Rat
7904 MG/KG
LD50

Intraperitoneal
Mouse
172 MG/KG
LD50

IRRITATION DATA

Eyes
Rabbit
100 mg
Remarks: Mild irritation effect

CHRONIC EXPOSURE - CARCINOGEN
Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.
Species: Rat
Route of Application: Inhalation
Dose: 4200 UG/M3
Exposure Time: 52W-
Frequency: I

Species: Rat
Route of Application: Inhalation
Dose: 4 MG/M3
Exposure Time: 1Y-
Frequency: I

Species: Rat
Route of Application: Inhalation
Dose: 1600 UG/M3
Exposure Time: 52W-
Frequency: I
Result: Tumorigenic:Neoplastic by RTECS criteria. Liver:Tumors. Skin and Appendages: Other: Tumors.

Species: Rat
Route of Application: Inhalation
Dose: 50 MG/M3
Exposure Time: 7H/52W-
Frequency: I
Result: Tumorigenic:Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.

IARC CARCINOGEN LIST
Rating: Group 2B

ACGIH CARCINOGEN LIST
Rating: A2

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 50 MG/L
Cell Type: lymphocyte
Mutation test: Cytogenetic analysis

Species: Hamster
Dose: 90 UG/L
Cell Type: lung
Mutation test: Sister chromatid exchange

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 270 UG/M3
Route of Application: Inhalation
Exposure Time: (1-21D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death.
Species: Rat  
Dose: 82 UG/M3  
Route of Application: Inhalation  
Exposure Time: (1-21D PREG)  
Result: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Rat  
Dose: 270 UG/M3/24H  
Route of Application: Inhalation  
Exposure Time: (1-21D PREG)  
Result: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death.

Species: Rat  
Dose: 23320 UG/KG  
Route of Application: Intratesticular  
Exposure Time: (1D MALE)  

Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations
APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information
DOT
Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information
EU DIRECTIVES CLASSIFICATION
Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 40  
Risk Statements: Limited evidence of a carcinogenic effect.  
S: 22 36/37  
Safety Statements: Do not breathe dust. Wear suitable protective clothing and gloves.
US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Harmful.
Risk Statements: Limited evidence of a carcinogenic effect.
Safety Statements: Do not breathe dust. Wear suitable protective clothing and gloves.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: Yes
DEMINIMIS: 1 %
NOTES: This product is subject to SARA section 313 reporting requirements - antimony compounds.
TSCA INVENTORY ITEM: Yes

UNITED STATES - STATE REGULATORY INFORMATION

CALIFORNIA PROP - 65
California Prop - 65: This product is or contains chemical(s) known to the state of California to cause cancer.

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
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