

Material Safety Data Sheet

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Version 1.2

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name ANTIMONY(III) OXIDE, 99.99%
Product Number 379255

Company Sigma-Aldrich Pty, Ltd
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 Australia

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2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
ANTIMONY (III) OXIDE	1309-64-4	215-175-0	051-005-00-X

Formula Sb2O3
Molecular Weight 291.5 AMU
Synonyms A 1582 * A 1588LP * Amspec-KR * Antimonious
 oxide * Antimony(3+) oxide * Antimony
 sesquioxide * Antimony trioxide * Antimony
 trioxide production (ACGIH) * Antimony White *
 Antox * AP 50 * AT 3 (fireproofing agent) * Atox
 F * Atox S * Chemetron fire shield * C.I. 77052
 * C.I. Pigment White 11 * Dechlorane A-O *
 Diantimony trioxide * Exitelite * Fireshield
 FSPO 405 * Flowers of antimony * NCI-C55152 *
 Nyacol A 1530 * Nyacol A 1510LP * Patox C *
 Patox H * Patox L * Patox M * Patox S * Stibiox
 MS * Thermoguard B * Thermoguard L * Thermoguard
 S * Timonox * Timonox White Star * Twinkling
 star * Weisspiessglanz (German) * White star

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
 Limited evidence of a carcinogenic effect.
 Carc. Cat.3

4 - First Aid Measures

AFTER INHALATION

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

AFTER SKIN CONTACT

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

AFTER EYE CONTACT

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.

AFTER INGESTION

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

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

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

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES 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.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

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

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	0.5 mg/m ³

EXPOSURE LIMITS - GERMANY

Source	Type	Value
TRGS 900	OEL	0.3 mg/m3, E

Remarks: 4

Remarks: 25, TRGS 901-22

EXPOSURE LIMITS - SWITZERLAND

Source	Type	Value
OEL	OEL	0.1 mg/m3

Remarks: E K

EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL	TWA	0.5MG(SB)/M3

PERSONAL PROTECTIVE EQUIPMENT

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

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

 9 - Physical and Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	655 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	5.2 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

 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

11 - Toxicological Information

RTECS NUMBER: CC5650000

ACUTE TOXICITY

LD50

Oral

Rat

> 34600 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity).

Skin and Appendages: Other: Hair.

LD50

Intraperitoneal

Rat

3250 MG/KG

LD50

Subcutaneous

Rat

7904 MG/KG

LD50

Intraperitoneal

Mouse

172 MG/KG

IRRITATION DATA

Eyes

Rabbit

100 mg

Remarks: Mild irritation effect

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.

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.

Rat

Route of Application: Inhalation

Exposure Time: 52W-

Result: Tumorigenic:Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Liver:Tumors.

Rat

Route of Application: Inhalation

Exposure Time: 1Y-

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. Liver:Tumors.

Rat
Route of Application: Inhalation
Exposure Time: 52W-
Result: Tumorigenic:Neoplastic by RTECS criteria. Liver:Tumors.
Skin and Appendages: Other: Tumors.

Rat
Route of Application: Inhalation
Exposure Time: 7H/52W-
Result: Tumorigenic:Carcinogenic by RTECS criteria. Lungs,
Thorax, or Respiration:Tumors.

IARC CARCINOGEN LIST

Rating: Group 2B

CHRONIC EXPOSURE - MUTAGEN

Human
50 MG/L
Cell Type: lymphocyte
Cytogenetic analysis

Hamster
90 UG/L
Cell Type: lung
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)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct.
CMR CAT.: Carc. Cat.3

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

14 - Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport.

IATA

Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 051-005-00-X

INDICATION OF DANGER: Xn

Harmful.

R-PHRASES: 40

Limited evidence of a carcinogenic effect.

S-PHRASES: 22 36/37

Do not breathe dust. Wear suitable protective clothing and gloves.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 2

SWITZERLAND

SWISS POISON CLASS: 4

16 - Other Information

WARRANTY

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. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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