

**ANTIMONY TRIOXIDE****0012**  
May 2003CAS No: 1309-64-4  
RTECS No: CC5650000  
UN No: 1549 (see Notes)  
EC No: 051-005-00-XAntimony sesquioxide  
Antimony(III) oxide  
Antimony white  
Flowers of antimony  
Sb<sub>2</sub>O<sub>3</sub>  
Molecular mass: 291.5

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>			
<b>EXPOSURE</b>		<b>PREVENT DISPERSION OF DUST! STRICT HYGIENE! AVOID EXPOSURE OF (PREGNANT) WOMEN!</b>	
<b>Inhalation</b>	Cough. Headache. Nausea. Sore throat. Vomiting.	Local exhaust or breathing protection.	Fresh air, rest. Refer for medical attention.
<b>Skin</b>	Redness. Pain. Blisters.	Protective gloves.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
<b>Eyes</b>	Redness. Pain.	Safety goggles or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Diarrhoea. Sore throat. Vomiting. Burning sensation in the stomach (further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Rest. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Personal protection: P2 filter respirator for harmful particles. Do NOT let this chemical enter the environment. Sweep spilled substance into sealable containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place.	Xn Symbol R: 40 S: (2-)22-36/37  Do not transport with food and feedstuffs.

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT5-III	Separated from food and feedstuffs.

## IMPORTANT DATA

**Physical State; Appearance**

WHITE CRYSTALLINE POWDER.

**Chemical dangers**

The substance decomposes on heating producing toxic fumes. Reacts under certain circumstances with hydrogen, producing a very poisonous gas (stibine).

**Occupational exposure limits**

TLV: (as Sb) 0.5 mg/m<sup>3</sup> as TWA; (ACGIH 2003).  
TLV: Antimony trioxide (production) A2 (suspected human carcinogen); (ACGIH 2003).  
MAK: Carcinogen category: 2; Germ cell mutagen group: 3A; (DFG 2005).

**Routes of exposure**

The substance can be absorbed into the body by inhalation.

**Inhalation risk**

A harmful concentration of airborne particles can be reached quickly when dispersed.

**Effects of short-term exposure**

The substance is irritating to the eyes, the skin and the respiratory tract.

**Effects of long-term or repeated exposure**

Repeated or prolonged contact with skin may cause dermatitis. Lungs may be affected by repeated or prolonged exposure to the dust of this substance. Tumours have been detected in experimental animals but may not be relevant to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

## PHYSICAL PROPERTIES

Boiling point: (partially sublimes) 1550/C  
Melting point: (see Notes) 656/C  
Density: 5.2/5.7 g/cm<sup>3</sup> (see Notes)

Solubility in water, g/100 ml at 30/C: 0.0014 (none)  
Vapour pressure, Pa at 574/C: 130

## ENVIRONMENTAL DATA

The substance is very toxic to aquatic organisms. Bioaccumulation of this chemical may occur in crustacea. It is strongly advised that this substance does not enter the environment.

## NOTES

Melting point established under the absence of oxygen.  
Density differs with crystalline structure.  
Depending on the degree of exposure, periodic medical examination is suggested.  
The recommendations on this card do not apply to vapour exposure during the production.  
The technical product may contain impurities which alter the health effects; for further information see ICSC 0013 Arsenic.  
UN regulation: the special provision SP45 is applicable to the UN number 1549 (Hazard class 6.1 and packaging group III). It means that antimony sulfides and oxides which contain not more than 0.5 % of arsenic calculated on the total weight are not subject to these regulations.  
Card has been partly updated in October 2005. See sections Occupational Exposure Limits.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information