

CLIP, Chemical Laboratory Information Profile

"Only when you know the hazards, can you take the necessary precautionary measures."

Antimony(III) Chloride



CAS No.: 10025-91-9

Physical Properties

White hygroscopic crystals with a choking odor.
 Vapor pressure at 50 °C: 1 torr
 Melting point: 73 °C
 Boiling point: 223 °C

Exposure Limits

OSHA PEL: 0.5 mg/m³ (as Sb)
 ACGIH TLV: 0.5 mg/m³ (as Sb)

Hazardous Characteristics

Overall toxicity	Flammability	Destructive to skin/eye	Absorbed through skin	Sensitizer?	Self-reactive?	Incompatible with:
3	0	3	0	No	No	Bases.*

0: None (or very low); 1: Slight; 2: Moderate; 3: High; 4: Severe.

*Reactivity Hazards

Aqueous solutions are strongly acidic and often react violently with bases. In humid air SbCl₃ hydrolyzes, forming HCl vapor and the oxide. At temperatures near and above the boiling point, SbCl₃ vapors oxidize finely divided metal powders; the reaction can be violent. See Bretherick's *Handbook of Reactive Chemical Hazards* for details and for other incompatibilities.

Cited as known to be or reasonably

anticipated to be carcinogenic in NTP-9? No

Identified as a reproductive toxin in Frazier and Hage,

Reproductive Hazards of the Workplace?

No

Typical symptoms of acute exposures:

If inhaled, coughing, shortness of breath, labored breathing, lung edema (which can be severe). In the eyes, pain, blurred vision, blindness. On the skin, redness, pain, blistering, skin burns. If ingested, nausea, vomiting, abdominal pain.

Principal target organ(s) or system(s):

Eyes, skin, respiratory system, liver.

Storage Requirements

Store separated from bases with other inorganic acids in a cool, dry, well-ventilated location.

Additional Remarks

Symptoms of lung edema are not manifest immediately in victims who have inhaled particles of or mist from a solution of SbCl₃ or who have inhaled HCl vapors from hydrolyzed SbCl₃. Some hours may elapse before symptoms become evident; physical effort can exaggerate these symptoms. Rest is essential for persons so exposed.

Notes

ReadMe

This Chemical Laboratory Information Profile is *not* a Material Safety Data Sheet. It is a brief summary for teachers and their students that describes some of the hazards of this chemical as it is typically used in laboratories. On the basis of your knowledge of these hazards and before using or handling this chemical, *you need to select the precautions and first-aid procedures to be followed*. For that information as well as for other useful information, refer to Material Safety Data Sheets, container labels, and references in the scientific literature that pertain to this chemical.

Reproductive Toxins

Some substances that in fact are reproductive toxins are not yet recognized as such. For the best readily available and up-to-date information, refer to "DART/ETIC". See the TOXNET home page at <http://www.sis.nlm.nih.gov> and click on "Toxicology search". *Note that some of the data in DART/ETIC have not been peer-reviewed.* See also Linda M. Frazier and Marvin L. Hage, *Reproductive Hazards of the Workplace*; Wiley, 1998; and T. H. Shepard, *Catalog of Teratogenic Agents*, 9th ed.; Johns Hopkins University Press, 1998.

Abbreviations

ACGIH TLV—American Conference of Governmental Industrial Hygienists—Threshold Limit Value. C—Ceiling. CAS—Chemical Abstracts Service. mg/m³—milligrams per cubic meter. NA—Not applicable. NE—Not established. NI—No information. NTP-9—National Toxicology Program, Ninth Annual Report on Carcinogens. OSHA PEL—Occupational Safety and Health Administration—Permissible Exposure Limit. ppm—parts per million. STEL/C—Short-term exposure limit and ceiling.

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Date of preparation: November 27, 2002