

GHS Classification

ID1125

antimony pentachloride

CAS 7647-18-9

Date Classified: Jun. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

Physical Hazards

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not applicable	-	-	-	There are no chemical groups associated with explosive properties present in the molecules.
2 Flammable gases	Not applicable	-	-	-	Solid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Liquid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Liquid (GHS definition)
6 Flammable liquids	Not classified	-	-	-	Not combustible. (HSDB (2003))
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Not applicable	-	-	-	There are no chemical groups associated with explosive or self-reactive properties present in the molecule.
9 Pyrophoric liquids	Not classified	-	-	-	Not combustible (HSDB, 2003)
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible. (HSDB (2003))
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Although it reacts with water, UNRTDG is classified into 8 and II according to the U.N. number (1730) peculiar to a substance. Since 4.3 was not attached, it carried out the outside of Category.
13 Oxidizing liquids	Not classified	-	-	-	Not classified because of UNRTDG No. 1730, Class: 8, PG II (not Class: 5.1)
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
16 Corrosive to metals	Classification not possible	-	-	-	UNRTDG is classified into 8 and II according to the UNRTDG No. (1730). Although HSDB (2003) has the description "it has metal corrosiveness", there is not steels or aluminum test data, and it cannot be classified.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	Category 4 based on SPECIES: Rat; ENDPOINT: LD50/VALUE:1115mg/kg; REFERENCE SOURCE: RTECS (2004)
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: dust, mist)	Category 1	Skin and eye irritation	Danger	Fatal if inhaled	It was classified as Category 1 based on rat LC50 = 41.7ppm/4H (RTECS, 2004).
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 1A-1C	Corrosion	Danger	Causes severe skin burns and eye damage	There was description which indicates skin corrosivity in humans (HSDB (2003), HSFS (2004), and SITIG (4th, 2002)). But there was no animal data used as the index for further categorizing, it was set as category 1A-1C. [view] It is more desirable to be set as 1A from a viewpoint of safety, when further categorizing needs to be performed.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	Although there is no animal experiment data, the condition to the human has the description "severe/corrosive" in HSDB (2003) and HSFS (2004), and also it shows causticity to the skin. Therefore, it was classified into Category 1.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	Without data. (It has classified with 3A as inorganics antimony compounds according to MAK/BAT (2005). Germ-cell mutagenicity is suspected.)
6 Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It is classified into 2B as antimony compounds in industrial hygiene academic society advice (2005). It was classified into Category 2.

7	Toxic to reproduction	Classification not possible	-	-	-	No data available
8	Specific target organs/systemic toxicity following single exposure	Category 2 (respiratory)	Health hazard	Warning	May cause damage to organs (respiratory)	The substance was classified as Category 2 (respiratory system) because there are reports in Priority 2 documents (HSDB (2003), HSFS (2004) and SITTIG (4th, 2002)) of effects on the respiratory system such as pulmonary edema in humans.
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (lung, cardiovascular system)	Health hazard	Danger	Causes damage to organs (lung, cardiovascular system) through prolonged or repeated exposure	It is supposed that it has the effects on lungs and the cardiovascular system by as antimony compound (ACGIH-TLV (2004) of Priority 1 document). Since there is description of the influence into the heart and the lungs of humans also (HSFS (2004) and SITTIG (4th, 2002) of Priority 2 document), it was classified into Category 1 (lungs, cardiovascular system).
10	Aspiration hazard	Classification not possible	-	-	-	Since there are many descriptions of pulmonary edema by aspiration of vapor or mist, however, the report by the oral ingestion was not found, in addition, and the dynamic viscosity at 40 degrees C was also unknown (0.87mm ² /s at 29.4 degrees C), we could not classify it.

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Category 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96-hour LC50=0.93mg/L of fishes (Red sea bream) (CERI Hazard Data, 2002).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, since acute toxicity was Category 1, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.