GHS Classification

ID1127 Antimonate(2-), bis[mu-[2,3-di(hydroxy-kappaO)butanedioato(4-)-kappaO1:kappaO4]]di-, dipotassium, trihydrate, stereoisomer

CAS 28300-74-5 Date Classified: Aug. 22, 2006 (Environmental Hazards: Mar. 31, 2006)

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

Physical Hazards

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	–	–	–	Solid (GHS definition)
5	Gases under pressure	Not applicable	–	–	–	Solid (GHS definition)
6	Flammable liquids	Not applicable	–	–	–	Solid (GHS definition)
7	Flammable solids	Not classified	–	–	–	UNRTDG is classified into 6.1 and III according to the UNRTDG No. (1551). Since 4.1 was not assigned, it was considered as out of Category.
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 applicable	–	–	–	Solid (GHS definition)
10	Pyrophoric solids	Not classified	–	–	–	Not classified because of UNRTDG No. 1551, Class: 6.1, III (not Class: 4.2)
11	Self-heating substances and mixtures	Not classified	–	–	–	Not classified because of UNRTDG No. 1551 Class: 6.1, PG III (not Class: 4.2)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	–	–	–	Stable to water (the water solubility is obtained)
13	Oxidizing liquids	Not applicable	–	–	–	Solid (GHS definition)
14	Oxidizing solids	Not classified	–	–	–	UNRTDG No. 1551, Class: 6.1; PG III (Not 5.1).
15	Organic peroxides	Not applicable	–	–	–	Organic compounds containing no -O-O- structure
16	Corrosive to metals	Classification not possible	–	–	–	Test methods applicable to solid substances are not available.

Health Hazards

Hazard class		Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Category 3	Skull and crossbones	Danger	Toxic if swallowed	The substance was classified as Category 3, because the LD50 in rats was 115mg/kg in RTECS (2004). [Note] Since there is little health hazard data for the anhydride of potassium antimonyl tartrate (CAS No.11071-15-1), we performed the investigation and classification by treating the substance as the trihydrate (CAS No.28300-74-5).
1	Acute toxicity (dermal)	Classification not possible	–	–	–	No data available
1	Acute toxicity (inhalation: gas)	Not applicable	–	–	–	Solid (GHS definition)
1	Acute toxicity (inhalation: vapour)	Classification not possible	–	–	–	No data available
1	Acute toxicity (inhalation: dust, mist)	Classification not possible	–	–	–	No data available
2	Skin corrosion / irritation	Category 3	–	Warning	Causes mild skin irritation	Since it is supposed that there is skin irritation (HSFS (2004) and SITTIG (4th, 2002)) and there also the statement that the this product in ointments indicates mild irritation in early stages of use (a rash is produced in long-term uses) (HSDB (2005)), it was set as category 3.
3	Serious eye damage / eye irritation	Classification not possible	–	–	–	Although in HSFS (2004) and SITTIG (4th, 2002) there is eye irritation, the data which is supported is not found, and data is insufficient. Hence it cannot be classified.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available

5	Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	The chromosome aberration inducement by the rat equivalent to somatic cell in vivo mutagenicity test (RTECS, 2004), and the chromosomal abnormality to the patient's lymphocyte medicated with this product were seen. So it was set as Category 2.
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 hygene 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 1 (respiratory)	Health hazard	Danger	Cause damage to organs (respiratory)	There is a report in ACGIH-TLV (2005), a Priority 1 document, that in the form of an antimony compound it has airway irritant properties. The substance was classified as Category 1 (respiratory system) because there is also a report in SITTIG (4th, 2002), a Priority 2 document, of its airway irritant properties and pulmonary edema after exposure at a higher concentration.
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (lung, cardiovascular system); Category 2 (liver)	Health hazard	Danger	Causes damage to organs (lung, cardiovascular system) through prolonged or repeated exposure; May cause damage to organs (liver) through prolonged or repeated exposure	Since, in ACGIH-TLV (2005) of Priority 1 document, it is supposed that it has the effects on the lungs and the cardiovascular system by as an antimony compounds and there is description of the influence into the lungs and the heart of humans also (HSDB(2005), HSFS (2004) and SITTIG (4th, 2002) of Priority 2 document), it was classified into Category 1 (lungs, cardiovascular system). Moreover, in HSFS (2004) of and SITTIG (4th, 2002) Priority 2 document, there is the description of influence to human liver, so it was classified into Category 2 (liver). (The effects on the liver was observed also in the test of rabbit and rat, and the dose as which toxicity was observed was within the range of Category 2 in comparison with a guidance value (HSDB (2005) and RTECS (2004)).)
10	Aspiration hazard	Classification not possible	–	–	–	No data available

Environmental Hazards

Hazard class		Classification	symbol	signal word	hazard statement	Rational for the classification
11	Hazardous to the aquatic environment (acute)	Category 3	–	–	Harmful to aquatic life	It was classified into Category 3 from 96-hour LC50=12000microg/L of fishes (Fathead minnows) (AQUIRE, 2003).
11	Hazardous to the aquatic environment (chronic)	Category 3	–	–	Harmful to aquatic life with long lasting effects	Classified into Category 3, since acute toxicity was Category 3, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.