GHS Classification

ID1271 triphenyltin chloride

CAS 639-58-7 Date Classified: Feb. 20, 2007 (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	–	–	–	Solid (GHS definition)
5	Gases under pressure	Not applicable	–	–	–	Solid (GHS definition)
6	Flammable liquids	Not applicable	–	–	–	Solid (GHS definition)
7	Flammable solids	Classification not possible	–	–	–	No data available
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	–	–	–	Non-pyrophoric when in contact with air at a room temperature and used as agricultural chemicals.
11	Self-heating substances and mixtures	Classification not possible	–	–	–	Test methods applicable to solid (melting point <= 140degC) substances are not available.
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	Classification not possible	–	–	–	No data available
15	Organic peroxides	Not applicable	–	–	–	Organic compounds containing no -0-0- 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	Based on the rat oral LD50 values: 135mg/kg (RTECS, 2004) and 190mg/kg (HSDB, 2003), we adopted the lower value (135mg/kg) to classify the substance as Category 3.
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 2	Exclamation mark	Warning	Causes skin irritation	Since the burn injury was seen in the human skin (HSDB, 2003) and the strong reaction was seen in the skin of rats (RTECS, 2004;HSDB, 2003), it was set as category 2.
3	Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	Since the strong reaction was seen in Standard Draize Test of a rat eye (RTECS and 2004), it was set as Category 2A-2B. In addition, detailed categorization is difficult.
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	Not classified	–	–	–	Since the mouse small core test in negative (CICAD 13, 1999), and it had concluded "Triphenyl tin compound does not indicate genotoxicity" as a result of evaluation of a series of triphenyl tin compound in CICAD 13, 1999. So it is classified as the out of the Category.
6	Carcinogenicity	Not classified	–	–	–	There is no this product data. But it is supposed that there is no carcinogenic in the triphenyl tin evaluation having included the this product (CICAD 13, 1999). In addition, the organotin compounds was set to A4 (not classified with a the human carcinogen) in ACGIH (ACGIH-TLV, 2005). Therefore, it carried out the outside of category.

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the undorn child	Since the inhibition of implantation is seen in rat (CICAD 13, 1999), in addition the influence of triphenyl tin compounds on reproduction and generating was seen in laboratory animals in the dose which indicates maternal toxicity (CICAD 13, 1999), it was set as Category2.
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	–	–	–	Since data is insufficient. Although it was considered as Category 1 (central nervous systems) based on knowledge of the humans and the animal in the water oxidization triphenyl tin and acetic acid triphenyl tin of the similar substance, but respiratory and nervous system disorders was not observed in human cases by high exposures of the product (CICAD 13, 1999). Refer to triphenyltin hydroxide (ID 1269, Chemical Abstracts Service: 76-87-9) and acetates triphenyl tin (ID 1270, Chemical Abstracts Service: 900-95-8).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (immune system)	Health hazard	Danger	Causes damage to organs (immune system) through prolonged or repeated exposure	Since in a rat, the affect on immune systems, such as atrophy of the thymus or a spleen, is observed in the guidance concentration range of Category 1(CICAD 13, 1999) and triphenyl tin compounds may affect an immune system and may impair this function (CICAD 13, 1999), it was classified into Category 1 (immune systems).
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 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 24-hour LC50=0.035mg/L of Crustacea (Daphnia magna) (ECETOC TR91, 2003).
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 is Category 1,not rapidly degrading (it hydrolyzed, and triphenyltin hydroxides was generated, and remained (existing chemical substances safety inspections data)), and bioaccumulative (BCF=7100 of triphenyltin hydroxides (existing chemical substances safety inspections data)).