

GHS Classification

ID1282

tin dichloride

CAS 7772-99-8

Date Classified: Mar. 15, 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	Not classified	-	-	-	Non-combustible (ICSC (J) (2004))
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-combustible (ICSC (J), 2004)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (2004))
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	-	-	-	Reducing substance (ICSC(J) (2004), Merck 13th (2001))
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
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 5	-	Warning	May be harmful if swallowed	Based on the rat oral LD50 value: 2300 mg/kg (JECFA, 2001), the substance was classified as Category 5. There is also data that the LD50 = 700mg/kg. But the data is old (obtained in 1942), and it was not used in the latest evaluations. The LD50 value of stannum was assessed as 1.1-1.7 g/kg (equivalent to 1.8-2.7g/kg of stannous chloride) (CICAD 65, 2005), so we did not use this data. [Note] There are both anhydrous and dihydrate(CAS No.10025-69-1) forms of stannous chloride. In this GHS classification, the substance was investigated as anhydrous SnCl2 (CAS No.7772-99-8).
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	Classification not possible	-	-	-	There is the description that effect was not acknowledged by the coating of the 0.5% solution (DFGOT 14, 2000) or 2% solution (CICAD 65, 20005) to the rabbit skin. Also there is description that the 5% and 10% solution in the human patch test indicated skin irritation (1% solution didn't) (DFGOT 14, 2000), the data is insufficient, and it cannot be classified.
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	From the description that eye irritation was indicated with this product (ICSC, 2004), and eye irritation was indicated with inorganic tin compounds (ACGIH-TLV(2006)), 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 possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available

5	Germ cell mutagenicity	Not classified	-	-	-	There is the negativity in a mouse bone marrow small core test (CICAD 65, 2005), and it is classified as the out of the Category. Moreover, although it was negative in the Ames test and the mouse lymphoma test at the in vitro mutagenicity test, it was positive in the chromosome aberration test. This positive supposes that it may have originated in changes in culture environment (CICAD 65, 2005). In addition, although the weak positive response was seen in the mouse bone marrows chromosome aberration test carried out in parallel to the mouse micronucleus te
6	Carcinogenicity	Not classified	-	-	-	Since clear positive findings was not acquired in the carcinogenicity tests using rats and mouse (CICAD 65, 2005), it carried out the outside of Category. In addition, the increase in the thyroid C cell frequency of adenomas is seen in male rats and it is being set as equivocal in the result of the NTP examination concerned. However, the possibility under the influence of a fluorescent light is suggested (CICAD 65, 2005).
7	Toxic to reproduction	Not classified	-	-	-	Since the reproductive and developmental toxicity effects was not seen in mouse or rat (CICAD 65, 2005), it was set as the outside of Category.
8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	may cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract	Since this product indicates respiratory irritant (ICSC, 2004) and an inorganic tin compounds indicates respiratory irritant (ACGIH-TLV (2006)), it was considered as Category 3 (respiratory irritant). In addition, single time dose in animals, effect was not observed within the guidance value of Category 2 (CICAD 65, 2005).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (lung)	Health hazard	Danger	causes damage to organs (lung) through prolonged or repeated	It is supposed that although the effect was not observed within the guidance value of Category 2 (CICAD 65, 2005), it had a possibility of pneumoconiosis by as an inorganic tin compound (ACGIH-TLV (2006)) in the animal feeding administration test for 13 weeks. Therefore it was classified into Category 1 (lungs). In addition, the statement "benign pneumoconiosis" is seen in the description about the toxicity of the tin salt in SEISYO.
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 72-hour EC50=200microg/L of the algae (Thalassiosira) (AQUIRE, 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 was Category 1, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.