

## GHS Classification

**ID1272**

**fentin fluoride**

**CAS 379-52-2**

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	-	-	-	The melting point was as high as 357 degC (decomposition) (Guidance for handling toxic and deleterious substances, Jiji Press, the latest version, 2001), and since it was used as an antifouling paint etc., it was thought that it did not ignite spontaneously even if it contacted the normal temperature air. Thus, it was defined as "out of Category".
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (insoluble in water)
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 -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)	Classification not possible	-	-	-	No data available
1 Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	It was set as Category 3 from rabbit dermal LD50 = 1000mg/kg (RTECS, 2003).
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	-	-	-	Classification not possible due to lack of data
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
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	-	-	-	Although genotoxicity is not indicated in triphenyl tin(CICAD 13, 1999;JMPR 827, 1991), there is no data of this product. So it cannot be classified.
6 Carcinogenicity	Not classified	-	-	-	There is no this product data. But triphenyl tin is not carcinogenic (CICAD 13, 1999), and 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	Classification not possible	-	-	-	Although the influence of triphenyl tin compounds on reproduction and generating is supposed in laboratory animals in the dose which indicates maternal toxicity (CICAD 13, 1999), there is no data of the this product. So it cannot be classified.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (central nervous system); Category 3 (respiratory tract irritation)	Health hazard	Danger	Cause damage to organs (central nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	Although there is no data of this product itself, from the influence on the central nervous systems in human as an organic tin compounds (ATSDR, 2005; ACGIH 7th, 2001; Patty 5th, 2001) and the potential of respiratory irritant (ATSDR, 2005; ACGIH 7th, 2001) being indicated, it was considered as Category 1 (central nervous systems) and Category 3 (respiratory irritant).
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	Although own data of this substance could not be found, since it was suggested that triphenyl tin compound affected the human immune system (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 96-hour LC50=445microg/L of fishes (Rainbow trout) (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 is Category 1, not rapidly degrading (it hydrolyzed, and triphenyltin hydroxides was generated, and remained (existing chemical substances safety inspections data)), and bioaccumulative (BCF=4880 (existing chemical substances safety inspections data)).