

## GHS Classification

**ID1273**

**tributyltin hydroxide**

**CAS 1067-97-6**

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	-	-	-	Liquid (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	Classification not possible	-	-	-	No data available
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	-	-	-	It was a kind of tributyl tins, and tributyl tins was once used as a antifouling agent of a hull or fishing implements. And it was considered not to ignite spontaneously, even if it contacts the normal temperature air, and was classified the outside of Category.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to liquid substances are not available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	It was a kind of tributyl tins, and since tributyl tins was once used as a antifouling agent of a hull or fishing implements, it was considered to be stable to water and carried out the outside of category.
13 Oxidizing liquids	Classification not possible	-	-	-	No data available
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	No data 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)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (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 knowledge that tributyltin compounds or organic tin compounds indicates skin irritation (DFGOT 1, 1991-atty 5th, 2001;ATSDR, 2005), but there is no this product data, data is insufficient and it cannot be classified.
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	There is no this product data, although there is knowledge that eye irritation was indicated with the organic tin compound (ACGIH 7th, 2001; Patty 5th, 2001; ATSDR, 2005). But data is insufficient, it cannot classify.
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	-	-	-	No data available
6 Carcinogenicity	Classification not possible	-	-	-	The organotin compounds is classified into A4 (it cannot classify into a the human carcinogens) in ACGIH. On the other hand, there is also a knowledge that a certain kind of organotin compounds induces cancer to animals (ATSDR, 2005) and data of its this product themselves cannot be found. Therefore, it cannot be classified since the data is insufficient.

7	Toxic to reproduction	Classification not possible	-	-	-	Although a possibility that organotin compounds will affect genitalium of animals is suggested in the description (ATSDR, 2005), or tributyltin compounds is classified into Category C in DFG (a substance which does not affect human embryos and fetuses if it is within a MAK/BAT value) (MAK/BAT, 2005), there is no data of this product. And data is insufficient, 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 product could not be found, since the impacts of effects on the human immune system was suggested by as an organic tin compounds (ATSDR, 2005; ACGIH 7th, 2001-atty 5th, 2001), 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)	Classification not possible	-	-	-	Insufficient data available.
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	Classification not possible due to lack of data