

GHS Classification

ID1010

Triphenyl Phosphate

CAS 115-86-6

Date Classified: Jul. 24, 2006 (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	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to liquid or solid substances at 140degC are not available.
12 Substances and mixtures, which in contact with water, emit flammable gases	Classification not possible	-	-	-	No data available
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	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)	Category 5	-	Warning	May be harmful if swallowed	Rat LD50 value: 3500mg/kg (MOE Risk Assessment vol.4, 2005, EHC 111, 1991), 3800mg/kg (EHC 111, 1999, ACGIH 7th, 2001, DFGOT vol.2, 1991), 10800mg/kg (EHC 111, 1991, DFGOT vol.2, 1991), >5000mg/kg (EHC 111, 1991) and >6400mg/kg (PATTY 4th, 1994). Calculated based on the data above. Since the calculated values was 3723.1mg/kg, it was classified to category 5.
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on rabbit LD50 value: >7900mg/kg (MOE Risk Assessment the 4th volume, 2005, EHC 111, 1991, DFGOT vol.2, 1991), and >10000mg/kg (DFGOT vol.2, 1991), it was set as the outside of Category.
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	Not classified	-	-	-	From description that irritation was not admitted in the test applied to the skin of the rat for 4 hours on DFGOT (2 vol. 1991) and ACGIH (7th, 2001), it was carried out the outside of Category.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	We classified it as Category 2B based on the description that a slight conjunctival reddening was acknowledged and it disappeared within 7 days in the test applied to the eyes of the rabbits (DFGOT(vol.2,1991)).
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)-	Respiratory sensitization: No data. Skin sensitization: ACGIH (7th, 2001) and HSDB (2006) had description of the case report of allergic contact dermatitis, however, both of which were considered to be the same description of one case and did not have the report of two or more cases which is a judging standard of skin sensitization, and we thought the data was insufficient, therefore we presupposed that we could not classify it.
5 Germ cell mutagenicity	Classification not possible	-	-	-	Classification not possible due to lack of data
6 Carcinogenicity	Not classified	-	-	-	Since it was classified into A4 in ACGIH (ACGIH 7th, 2001), it was considered as the outside of Category.

7	Toxic to reproduction	Not classified	-	-	-	It was considered as out of Category based on the description that clear reproductive toxicity was not observed at the dose as which general toxicity is observed in parent animals in the test administered orally before mating till the term pregnancy using rat (MOE Risk Assessment 4th volume (2005), ACGIH (7th, 2001), and EHC 111 (1991)).
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	Insufficient data available.
9	Specific target organs/systemic toxicity following repeated exposure	Not classified	-	-	-	We classified it into Out Of Category based on the description that in the oral study using the rat, the serious toxic effect was not observed with the dose which exceeds the guidance value range of Category 2 (MOE Risk Assessment The 4th volume (2005), EHC 111 (1991), DFGOT (vol.2, 1991) and ACGIH (7th, 2001)).
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=0.18-0.32mg/L of Crustacea (Mysid shrimp) (EHC111, 1991).
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, and supposedly bioaccumulative (log Kow=4.59(PHYSROP Database, 2005)), though rapidly degrading (BOD: 90% (existing chemical substances safety inspections data)).