

GHS Classification

ID1004

Dibutyl phosphate

CAS 107-66-4

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	-	-	-	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	Not classified	-	-	-	Flash point: >93degC
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	-	-	-	Flash point: 420degC (ICSC (J), 1999)
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	Classification not possible	-	-	-	No data available
13 Oxidizing liquids	Classification not possible	-	-	-	No data available
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
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	SPECIES: Rat ENDPOINT: LD50 VALUE: 3200 mg/kg REFERENCE SOURCE: SIDS (2002)
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	Category 2	Exclamation mark	Warning	Causes skin irritation	From description that it is advanced stimulativeness at the skin of the rabbit (SIDS (2002)), it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	Based on the description that it had severe stimulativeness on the eyes of the rabbits (SIDS (2002)), we classified it as Category 2A.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	Classification not possible due to lack of data
6 Carcinogenicity	Classification not possible	-	-	-	No data available
7 Toxic to reproduction	Not classified	-	-	-	It was considered as out of Category based on the description that specific reproductive toxicity was not observed at the dose in which general toxicity is observed in parental animals in the reproductive and developmental toxicity studies using the rat (the Health, Labor and Welfare Ministry reports (2005), SIDS (2002)).

8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation, narcotic effects)	Exclamation mark	Warning	may cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation, narcotic effects)	It was judged that the substance had temporary affect on the nervous system and airway irritant properties, and it was classified as Category 3 (airway irritant, anesthetic properties). Because there were reports of decrease in locomotor activity, deep respiration and eyelid ptosis in an oral administration test using rats (MHLW report (2005)), and of irritation to airways and headaches in occupational exposure cases (ACGIH (7th, 2001)).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (bladder, liver, adrenal)	Health hazard	Warning	may cause damage to organs (bladder, liver, adrenal) through prolonged or repeated	We classified it into Category 2 (a bladder, liver, adrenal gland) based on the description that in the oral study using the rat, the effect on a bladder (hyperplasia of the epithelium accompanied with degeneration of bladder mucosa), liver (hepatocyte fatty changes) and the adrenal gland (increase of the vacuole in an adrenocortical cell) was observed with the dose of the guidance value range of Category 2 (the Health, Labor and Welfare Ministry reports (2005) and SIDS (2002)).
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)	Not classified	-	-	-	It carried out the outside of Category from 96-hour LC50=110mg/L of fishes (<i>Oryzias latipes</i>) (SIDS, 2004).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (water solubility=17190mg/L(PHYSPROP Database, 2005)) and acute toxicity is low.