

GHS Classification

ID731

Benxyl acetate

CAS 140-11-4

Date Classified: Apr. 20, 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	Category 4	-	Warning	Combustible liquid	Flash point: >60degC and <=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	-	-	-	It is the liquid with ignition points of 460 degC (ICSC (1999)) and it does not ignite in room temperatures.
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 applicable	-	-	-	The chemical structure of the substance does not contain metals or metalloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
13 Oxidizing liquids	Not applicable	-	-	-	Organic compounds containing oxygen (but not chlorine and fluorine) chemically bonded only to carbon (but not to other elements).
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)	Category 5	-	Warning	May be harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 2490 mg/kg REFERENCE SOURCE: ACGIH (2001) It was set as the outside of Category from rabbit LD50: >5000mg/kg (IUCLID (2000)).
1 Acute toxicity (dermal)	Not classified	-	-	-	Liquid (GHS definition)
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	-	-	-	Classification not possible due to lack of data
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	It was classified as Category 2 because of the statement of moderate on rabbits (RTECS (2005)).
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	It was segmented into Category 2 from the statement of eye irritation (IARC 40 (1986)). Since there is no descriptions of reparable, subdivide Category of 2A and 2B is not made. It is more desirable to be set as 2A from a viewpoint of safety, when subdivision needs to be performed by display etc.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: Since there is no data, it cannot be classified. Skin sensitization: It was put outside of the Category according to the negative statement(IUCLID (2000)) of the test which was made by volunteers and that of the test using guinea pigs(ACGIH (2001)) .
5 Germ cell mutagenicity	Not classified	-	-	-	Based on the descriptions (IARC 71 (1999)) that it gave negative result for the sister chromatid exchange test in mouse, negative for the micronucleus test which used the mouse marrow erythrocyte, negative for the micronucleus test which used the mouse peripheral blood, negative for the chromosomal aberration test which used the mouse marrow cells (all were in vivo). So we classified it as Out Of Category.
6 Carcinogenicity	Not classified	-	-	-	It carried out the outside of Category from it being classified into A4 according to ACGIH, and being classified into the group 3 according to IARC.
7 Toxic to reproduction	Classification not possible	-	-	-	Classification not possible due to lack of data

8	Specific target organs/systemic toxicity following single exposure	Category 1 (respiratory, central nervous system); Category 3 (narcotic effects)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (respiratory, central nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects)	There is the statement that respiratory irritation and anesthetic actions in humans (NTP TR250 (1986)), and pulmonary congestion, and pulmonary edemas in mouse by steam exposure in the guidance value of category 1 (ACGIH (2001)), and inhibition of central nerve (NTP TR431 (1993)). So it segmented into 1 (respiratory system, central nerves) and Category 3 (anesthetic actions).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (kidneys); Category 2 (nose mucous membrane)	Health hazard	Danger; Warning	Causes damage to organs (kidneys) through prolonged or repeated exposure; May cause damage to organs (nose mucous membrane) through prolonged	It was classified into Category 1 (kidney) because of the statement that it occurs disorders in the kidney of the humans by continuous inhalation exposure (NTP TR250 (1986)). It was classified into Category 2 (nasal mucosas) because of the statement that atrophy and degeneration of nasal mucosas, hyperplasia of nasal submucosal, and the pigmentation of the nasal-mucosa epithelium were observed in feed administration to mice, within the guidance value of Category 2 (NTP TR431 (1993)).
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 2	-	-	Toxic to aquatic life	It was classified into Category 2 from 96-hour LC50=4mg/L of fishes (<i>Oryzias latipes</i>) (ECETOC TR91, 2003).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since rapidly degrading (BOD: 95% (existing chemical safety inspections data)), and less bio-accumulative (log Kow=1.96 (PHYSPROP Database, 2005)).