

GHS Classification

ID729

Propyl acetate

CAS 109-60-4

Date Classified: Jul. 24, 2006 (Environmental Hazards: Feb. 10, 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 2	Flame	Danger	Highly flammable liquid and vapour	Category 2 because of its flash point: 13degC, initial boiling point: 101.6degC, and UNRTDG Class: 3, PGII
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: 430-450degC (Chapman , 2005; ICSC, 1996)
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not classified because of UNRTDG Class: 3
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)	Not classified	-	-	-	Based on LD50 value = 9.8 ml/kg (8700 mg/kg) in oral administration in rats (ACGIH (7th, 2001)), it was set as the outside of Category.
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on LD50 >20ml/kg (reduced value: >17720mg/kg) (ACGIH (7th, 2001)) in rabbit dermal administration, it was set as the outside of Category.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Category 5	-	Warning	May be harmful if inhaled	Based on the statements that 4 among 6 rats died with 8000ppm (ACGIH (7th, 2001)) and that LCLo = 8000ppm (IUCLID (2000)). LC50 value was considered to be close to 8000 ppm. And it was classified as Category 5.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	As the result of open irritation test on rabbit was reported to be "mild" (RTECS (2005)), it was classified as Category 3.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	It was set as Category 2B based on the statement (RTECS (2005)) that the result of Draize tests by rabbits was "mild." (RTECS (2005)) In addition, the irritant against eyes is reported in the exposure tests using a cat (ACGIH (7th, 2001)) and also humans (HSDB (2005)). Moreover, the this product is classified into R 36 by EU.
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	-	-	-	No data available
7 Toxic to reproduction	Classification not possible	-	-	-	No data available

8	Specific target organs/systemic toxicity following single exposure	Category 1 (central nervous system); Category 2 (liver); Category 3 (respiratory tract irritation, narcotic effects)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (central nervous system); May cause damage to organs (liver); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation, narcotic effects)	There is a statement that respiratory irritation and central nerve inhibition occur to humans (PATTY (5th, 2001)), and there is a effect possibility to central nervous systems and liver (HSFS (2001)). And there is a publication of salivation (10.9 mg/L, ACGIH (7th, 2001)) and a staggering gaits (30.9 mg/L, PATTY (5th, 2001)) in a cat, and stillness (exposure dosage ignorance, RTECS (2005)) in a rat, and the central action is suggested. There is a publication of an anesthesia action in cat and mice (ACGIH (7th, 2001), PATTY (5th, 2001), RTECS (2005)). On the other hand, there is a statement that the animal which assumed the deep anesthesia state was recovered quickly (GESTIS (2005)). It is classified into Category 1 (central nervous system), 2 (hepatic), and 3 (respiratory irritation, anesthesia action) based on these information.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	No data available
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 3	-	-	Harmful to aquatic life	It was classified into Category 3 from 96-hour LC50=60mg/L of fishes (Fathead minnows) (HSDB, 2004).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since rapidly degrading (BOD: 81% (existing chemical safety inspections data)), and less bio-accumulative (log Kow=1.24 (PHYSROP Database, 2005)).