

GHS Classification

ID934

bromodichloromethane

CAS 75-27-4

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	-	-	-	Non-combustible (HSDB, 2005; etc.)
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	-	-	-	Non-combustible (HSDB, 2005 ; etc.)
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Not classified	-	-	-	Non-combustible (HSDB, 2005; etc.)
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 chlorine (but not oxygen and fluorine) chemically bonded only to carbon and hydrogen (but not to other elements).
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 4	Exclamation mark	Warning	Harmful if swallowed	Category 4 based on SPECIES: Rat; ENDPOINT: LD50; VALUE: :916mg/kg (IARC 52, 1992; NTP TR 321, 1987; ATSDR, 1989), 651mg/kg (IARC 52, 1992), 430mg/kg (ATSDR, 1989)
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	-	-	-	No data available
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Not classified	-	-	-	There is a negative result (IARC 71, 1999, NTP DB, 2005) by the micronucleus test which used the mouse marrow cells . which are the in vivo mutagenicity tests using a somatic. So it carried out the outside of Category.

6	Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It was classified into in group 2B (IARC 71, 1999) in IARC, 2B in Japan Assoc. of Industrial Health (industrial hygiene academic society recommendation, 2005), B2 (IRIS, 2006) in EPA in 1993 and R (NTP RoC 11th, 2005) in NTP. So it was considered as Category 2.
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 fetus organogenesis period by oral administration test using rat (IARC 52 (1992), NTP TR 321 (1987), ATSDR (1989)).
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	Insufficient data available.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver, kidneys, thyroid gland)	Health hazard	Warning	May cause damage to organs (liver, kidneys, thyroid gland) through prolonged or repeated exposure	Based on the description that the influence on the liver such as hepatocyte fatty degenerations etc. and the influence on the kidneys such as nephric tubule degeneration etc. were observed with the dose of the guidance value range of Category 2 in the long-term oral administration test using rat and mouse (IARC 71 (1999), ATSDR (1989), IRIS (2006), NTP TR 321 (1987) and NTP DB (2006)), and based on the description that hyperplasia of the thyroid follicle cells was observed with the dose of the guidance value range of Category 2 in the oral study using the mouse (NTP TR 321 (1987) and IRIS (2006)), we categorized it as Category 2 (liver, kidney, thyroid gland).
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 72-hour ErC50=12mg/L of algae (Selenastrum) (MOE eco-toxicity tests of chemicals, 1995).
11 Hazardous to the aquatic environment (chronic)	Category 3	-	-	Harmful to aquatic life with long lasting effects	Classified into Category 3, since acute toxicity was Category 3 and supposed not rapidly degrading (BIOWIN), though supposed less bio-accumulative (log Kow=2(PHYSPROP Database, 2005)).