

GHS Classification

ID931

bromoethylene

CAS 593-60-2

Date Classified: May 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	-	-	-	Gas (GHS definition)
2 Flammable gases	Category 1	-	Danger	Extremely flammable gas	Ignitable when in a mixture of 13% or less by volume in air. UNRTDG Class: 2.1
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not classified	-	-	-	UNRTDG Class: 2.1
5 Gases under pressure	Liquefied gas	Gas cylinder	Warning	Contains gas under pressure; may explode if heated	Critical temp: >-50degC (Partially liquid at temperatures above -50degC)
6 Flammable liquids	Not applicable	-	-	-	Gas (GHS definition)
7 Flammable solids	Not applicable	-	-	-	Gas (GHS definition)
8 Self-reactive substances and mixtures	Not applicable	-	-	-	Gas (GHS definition)
9 Pyrophoric liquids	Not applicable	-	-	-	Gas (GHS definition)
10 Pyrophoric solids	Not applicable	-	-	-	Gas (GHS definition)
11 Self-heating substances and mixtures	Not applicable	-	-	-	Gas (GHS definition)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	-	-	-	Gas (GHS definition)
13 Oxidizing liquids	Not applicable	-	-	-	Gas (GHS definition)
14 Oxidizing solids	Not applicable	-	-	-	Gas (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Gas (GHS definition)
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to gas or liquid substances at a test temperature, 55degC, are not available.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Not applicable	-	-	-	Gas (GHS definition)
1 Acute toxicity (dermal)	Not applicable	-	-	-	Gas (GHS definition)
1 Acute toxicity (inhalation: gas)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Not applicable	-	-	-	Gas (GHS definition)
2 Skin corrosion / irritation	Classification not possible	-	-	-	Classification not possible due to lack of data
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	There were no concrete case reports. But based on the descriptions that it stimulated the eyes or it may have stimulated the eyes in ICSC (J) (2002), HSFS (2000), and SITTIG (4th, 2002), we classified it as Category 2A-2B.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is a positive result (RTECS, 2005) by the DNA damage test using the mouse somatic which is an in vivo genotoxicity study using a somatic, and there is a positive result (ACGIH 7th, 2001, PATTY 4th, 1994, IARC 71, 1999, NTP DB, 2005) by the reverse mutation test using the bacteria which are vitro mutagenicity tests. So it was set as Category 2.

6	Carcinogenicity	Category 1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It was classified into group 2A (IARC 71, 1999) in IARC, 2A (it and) in Japan Assoc. of Industrial Health (industrial hygiene academic society recommendation, 2005), A2 (ACGIH 7th, 2001) in ACGIH, R (NTP RoC 11th, 2005) in NTP and category 2 (EU-Annex I, 2005) in EU. So it was considered as Category 1B.
7	Toxic to reproduction	Classification not possible	-	-	-	No data available
8	Specific target organs/systemic toxicity following single exposure	Category 3 (narcotic effects)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects)	Because of descriptions in ACGIH (7th, 2001), PATTY (4th, 1994), and IRIS (2005) referring to confirmation of anesthetic actions in inhalation exposure tests using rats and mice, and of descriptions in ACGIH (7th, 2001) and IARC 71 (1999) referring to that dizziness, drowsiness and unconsciousness have been reported through high exposure levels to humans. So it was judged that there were anesthetic actions, determined to be Category 3 (anesthetic actions).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (liver)	Health hazard	Danger	Causes damage to organs (liver) through prolonged or repeated	We categorized it to be Category 1 (liver) based on the description that the both carcinogenic and noncarcinogenic influences were observed in the liver with the range of guidance value of Category 1 in carcinogenicity tests by inhalation exposure using the rat (IRIS (2005)).
10	Aspiration hazard	Not applicable	-	-	-	Gas (GHS definition)

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Classification not possible	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.