

GHS Classification

ID165

CAS 75-25-2

Physical Hazards

Tribromomethane; Bromoform

Date Classified: Apr. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not applicable	-	-	-	Containing no chemical groups with explosive properties
2 Flammable gases	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
5 Gases under pressure	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
6 Flammable liquids	Not classified	-	-	-	Non-combustible (ICSC, 2004)
7 Flammable solids	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
8 Self-reactive substances and mixtures	Not applicable	-	-	-	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not classified	-	-	-	Non-combustible (ICSC, 2004)
10 Pyrophoric solids	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
11 Self-heating substances and mixtures	Not classified	-	-	-	Non-combustible (ICSC, 2004)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	-	-	-	Containing no metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At)
13 Oxidizing liquids	Not applicable	-	-	-	Organic compounds containing no oxygen, fluorine and chlorine
14 Oxidizing solids	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no "-O-O-" structure
16 Corrosive to metals	Not classified	-	-	-	Classified into Division 6.1 (UN#2515) (UN Recommendations on the Transport of Dangerous Goods)

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	Based on the LD50 value of 107mg/kg calculated from the testing data of rat LD50 (oral route) of 933mg/kg (CERI-NITE Hazard Assessment No.38 (2004)), 2,040mg/kg (CERI-NITE Hazard Assessment No.38 (2004)) and 2,440mg/kg (CERI-NITE Hazard Assessment No.38 (2004)).
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Due to the fact that the substance is "liquid" according to the GHS definition.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Based on the description in the report on rabbit skin irritation tests (CERI-NITE Hazard Data 2000-11): "moderate irritant."
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	Based on the description in the report on rabbit eye irritation tests (CERI-NITE Hazard Data 2000-11 (2001)): "moderate irritant."
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) -	Respiratory sensitization: No data available Skin sensitization: No data available
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects	Based on absence of data on multi-generation mutagenicity tests/germ cell mutagenicity tests in vivo, positive data on somatic cell mutagenicity tests in vivo and the absence of positive data on germ cell genotoxicity tests in vivo, described in CERI-NITE Hazard Assessment No.37 (2004).
6 Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer	Due to the fact that the substance is classified as Group B2 by EPA (2002) and Category A3 by ACGIH (2001), though classified as Group 3 by IARC (2002).
7 Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the description in CERI-NITE Hazard Assessment No.38 (2004): embryo-fatal deaths are observed at dosing levels toxic to dams.
8 Specific target organs/systemic toxicity following single exposure	Category 1 (liver, nervous system, respiratory organs), Category 3 (narcotic effects)	Health hazard and Exclamation mark	Danger Warning	Causes damage to organs (liver, nervous system, respiratory organs) (Narcotic effects) May cause drowsiness or dizziness	Classified into Category 1, based on the description in CERI-NITE Hazard Assessment No.38 (2004): Symptoms including severe hepatopathy, depression of the central nervous system and pulmonary edema indicate the effects on the liver, central nervous system and respiratory organs. Classified into Category 3, based on the description in CERI-NITE Hazard Assessment No.38 (2004) and ACGIH (7th, 2001): Tribromomethane causes narcotic influence and irritation to the respiratory tract, pharynx and larynx. Animal studies suggest the effects on the liver, kidneys, central nervous system and respiratory organs - which are observed at dosing levels within the guidance value ranges for Category 2, though the dosing levels are relatively high.

9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (liver) Category 2 (kidneys, thyroid gland, nervous system)	Health hazard	Danger Warning	Causes damage to organs through prolonged or repeated exposure (liver) May cause damage to organs through prolonged or repeated exposure (kidneys, thyroid gland, nervous system)	Based on the evidence from animal studies including "hepatocyte vacuolation, focal hepatic inflammation, an increase in hepatocyte mitotic figures, renal tubular epithelial hyperplasia, glomerular degeneration, hypertrophied thyroid gland, lethargy, ataxia" (CERI-NITE Hazard Assessment No.38 (2004)). The effects on experimental animals are observed at dosing levels within the guidance value ranges for Category 1 (liver) and Category 2 (kidneys, thyroid gland and nervous system).
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 hours LC50=7100microg/L of the fish (Sheepshead Minnow) (MOE Risk Assessment vol. 2 (2003) and others.).
11 Hazardous to the aquatic environment (chronic)	Category 2	Environment	-	Toxic to aquatic life with long lasting effects	Although acute toxicity was Category 2 and the bio-accumulation potential was low (BCF=21(Existing Chemical Safety Inspections Data)), since there was no rapidly degrading (the decomposition by direct measuring (GC): 0%(Existing Chemical Safety Inspections Data)), it was classified into Category 2.