

GHS Classification

ID367

1-Octanol

CAS 111-87-5

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	-	-	-	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	Category 4	-	Warning	Combustible liquid	The flash point is 81 degC (c.c.) (ICSC, 2002) which is classified into Category 4.
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	-	-	-	Not pyrophoric when in contact with air at ordinary temperatures: the auto-ignition temperature is 253degC (ICSC, 2002)
10 Pyrophoric solids	Not applicable	-	-	-	Classified as "liquid" according to 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	-	-	-	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 oxygen (but not fluorine and chlorine), with the oxygen bound to carbon and hydrogen (but not to other elements)
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	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 the rat LD50 (oral route) of >5,000mg/kg (Priority 1) (DFGOT vol.20 (2001)).
1 Acute toxicity (dermal)	Classification not possible	-	-	-	Insufficient data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Due to the fact that the substance is "liquid" according to the GHS definition and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	Based on the evidence of mild irritation from rabbit skin irritation tests (undiluted solution applied) (Opdyke, 1973; Iwata et al., 1987) (DFGOT vol.20 (2005)).
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	Based on the score of rabbit eye irritation tests (Jacobs, 1992) (DFGOT vol.20 (2005)); Exposure to undiluted solution causes eye irritation, with the length of recovery period unknown.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible Skin sensitization: Classification not possible	-	-	-	Respiratory sensitization: No data available Skin sensitization: Insufficient data available
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects	Based on the absence of data on multi-generation mutagenicity tests, germ cell mutagenicity tests in vivo, positive data on somatic cell mutagenicity tests in vivo (micronucleus tests and chromosome aberration tests), and the absence of data on germ cell genotoxicity tests in vivo, described in CER1-NITE Hazard Assessment No.2001-43 (2002).
6 Carcinogenicity	Classification not possible	-	-	-	Cannot be classified due to lack of existing classification.
7 Toxic to reproduction	Classification not possible	-	-	-	Insufficient data available (no data available on the reproductive function and fertility potential of parent animals)
8 Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	(Respiratory tract irritation) May cause respiratory irritation	Based on the evidence from animal studies including "irritation to the upper respiratory tract" (DFGOT vol.20 (2004)).
9 Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	No data available
10 Aspiration hazard	Category 2	Health hazard	Warning	May be harmful if swallowed and enters airways	Based on the description in ICSC (J) (2002): "May cause aspiration and chemical pneumonia if swallowed (liquid)."

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 48 hours EC50=4200microg/L of the crustacea (Ceriodaphnia) (MOE Risk Assessment vol. 2, 2003).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since there was rapidly degrading (the decomposition by BOD: 89% (Existing Chemical Safety Inspections Data)) and the bio-accumulation was low (log Kow=3 (PHYSPROP Database, 2005)), it was classified into Not classified.