GHS Classification

ID500 2-(Diethylamino)ethyl methacrylate

CAS 105-16-8 Date Classified: Aug. 22, 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 76degC (Dean (15th, 1999)), which is classified into "Category 4."
7	Flammable solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
8	Self-reactive substances and mixtures	Classification not possible	—	—	—	Classification not possible due to lack of data, though containing unsaturated bonds (olefin)
9	Pyrophoric liquids	Classification not possible	—	—	—	No data available
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)	Category 5	—	Warning	May be harmful if swallowed	Based on the rat LD50 (oral route) of 4,696mg/kg (CERI Hazard Data 2001-64 (2002)).
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 and inhalation of its gas is not expected.
1	Acute toxicity (inhalation:	Classification not possible	—	—	—	No data available
1	Acute toxicity (inhalation: dust, mist)	Category 5	—	Warning	May be harmful if inhaled	Based on the guinea pig LC50 value of 1,500ppm, calculated from the testing data of guinea pig LC50 (4 hour inhalation of vapour) of 11mg/L (CERI Hazard Data 2001-64 (2002)), exceeded the saturated vapour concentration (140ppm) under a saturated vapour pressure of 0.014kPa (25degC) (HSDB (2006)), the substance was considered as "mist exposure," and the obtained LC50 was lower than the upper limit value of Category 4 (5mg/L) by more than 2.5 fold.
2	Skin corrosion / irritation	Category 1A-1C	Corrosion	Danger	Causes severe skin burns and eye damage	Based on the description in the report on guinea pig skin irritation tests (CERI Hazard Data 2001-64 (2002)): "Severe irritation was observed" (though study details are not available). Although classified into Category 1A-1C in the absence of data on reversibility, the substance should be placed in Category 1A from the viewpoint of safety if further subclassification is needed.
3	Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	Based on the description in the report on rabbit eye irritation tests: "Severe conjunctival irritation was noted" (though no data are available on reversibility). Classified as Category 1 in accordance with the technical guideline, given the fact that the substance is classified into Category 1A-1C for "2. Skin corrosion/irritation."
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	Classification not possible	—	—	—	Classification not possible due to the insufficiency of data (no data available on in vivo mutagenicity/genotoxicity tests)
6	Carcinogenicity	Classification not possible	—	—	—	No data available
7	Toxic to reproduction	Category 1B	Health hazard	Danger	May damage fertility or the unborn child	Based on the evidence of decreased delivery in the absence of toxic effects on females, described in Report by the Ministry of Health, Labour and Welfare (1998) and CERI Hazard Data 2001-64 (2002).
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	Insufficient data available
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	—	—	—	Insufficient 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)	Not classified	-	-	-	It was classified into Not classified from 96 hours LC50>100mg/L of the fish (Oryzias Latipest) (MOE eco-toxicity tests of chemicals (1997) and others.).
11	Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since it was not water-insolubility (the water-solubility =11300mg/L (PHYSPROP Database, 2005)), and acute toxicity was low, it was classified into Not classified.