

GHS Classification

ID124

Ethanol, 2-(diethylamino)-

CAS 100-37-8

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	Category 3	Flame	Warning	Flammable liquid and vapour	Flash point: 52degC. Boiling point: 163degC
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	-	-	-	The ignition points is 250 degC and it is thought that in room temperatures it does not ignite.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (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	-	-	-	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 oxygen (but not chlorine 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	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	No data available on corrosion to metals

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	SPECIES: Rat ENDPOINT: LD50 VALUE: 1320 mg/kg REFERENCE SOURCE: SIDS(2003)
1 Acute toxicity (dermal)	Category 4	Exclamation mark	Warning	Harmful in contact with skin	It was set as Category 4 with the value of rabbit LD50= 1ml/kg (reduced value: 890mg/kg) (ACGIH (2001)).
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Category 3	Skull and crossbones	Danger	Toxic if inhaled	Rat Inhalation LC50: 4600mg/m3 (equivalent of 960ppm) (SIDS (2003)), 4500mg/m3 (equivalent of 940 ppm) (ACGIH (2001)), and 945ml/m3 (equivalent of 945ppm) (DFGOT vol.14 (2000)). Since the saturated vapor pressure concentration at 20degC is less than 1777ppm, they are considered to be inhalation steam tests. Therefore, it was classified as Category 3.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 1C	Corrosion	Danger	Causes severe skin burns and eye damage	Since corrosivity is verified in an examination (4 hours) on rabbits under OECD guideline 404 (SIDS (2003)), it was classified as Category 1C.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	Since there is the conclusion data of "critical damage over an eye" (CERI Hazard Data (2001)) and it was set to Category 1C on the skin, it was set as Category 1.
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 is uncategorizable because of no information. Uncategorizable because there are data that indicate sensitization in guinea pig skin(CERI Hazard Data (2001)) and that find no sensitization in guinea pigs (SIDS (2003))
5 Germ cell mutagenicity	Not classified	-	-	-	The substance was regarded as outside the categories because there is a negative result in the in vivo mouse micronucleus test (SIDS (2003)).

6	Carcinogenicity	Classification not possible	-	-	-	There was information (SIDS (2003)) that it was not carcinogenicity (SIDS (2003)). But there was no information of evaluation organizations, so it was determined that it cannot be classified.
7	Toxic to reproduction	Not classified	-	-	-	Since there was no bad effect to genitalia in rat inhalation test 365mg/m ³ (14week) (SIDS (2003)), there was no development disorder in 486 mg/m ³ inhalation administration to pregnancy rat (SIDS (2003)), and there was no effect to teratogenesis, embryo toxicity, and ferotoxicity in inhalation toxicity of rat(DFGOT vol.14(2000)), they were considered as on the outside of Category according to these information.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (systemic toxicity)	Health hazard	Danger	Cause damage to organs (systemic toxicity)	It was classified into Category 1 (whole body) since "nausea and vomiting" are observed in human cases (DFGOT vol.14 (2000), SIDS (2003), ACGIH (2001)).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver)	Health hazard	Warning	May cause damage to organs (liver) through prolonged or repeated	It was classified into Category 2 since liver disease was observed in rat with 100mg/kg diet (ACGIH (2001)).
10	Aspiration hazard	Classification not possible	-	-	-	No data available on chemical pneumonia

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=44mg/L of algae (Scenedesmus) (SIDS, 2004).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since rapidly degrading (22-day decomposition rate of the OECD test guideline 301A: 95% (SIDS, 2002)), and less bio-accumulative (BCF<6.1 (Existing Chemicals Safety Check Data)).