

GHS Classification

ID968

ethyl methanesulphonate

CAS 62-50-0

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	Classification not possible (Category 4 or Not classified)	-	Warning	Combustible liquid	Although the flash point generally varies with testing method, the testing method of available flash point information is unknown. Therefore, if the flash point is not measured with a real sample, it cannot be judged. The acceptance criteria are as follows: Category 4: 60-degC< flash point <=93 degC; out of Category: flash point >93 degC.
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	Classification not possible	-	-	-	No data available
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	Classification not possible	-	-	-	No data available
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	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 4	Exclamation mark	Warning	Harmful if swallowed	SPECIES: Mouse ENDPOINT: LD50 VALUE: 470 mg/g REFERENCE SOURCE: RTECS(2005)
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	There was no concrete case report. But it was set as Category 2 from description that the skin might be stimulated by contact (HSFS (2000)), and description that the skin was stimulated (SITTIG (4th, 2002)).
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	We found no concrete case reports. However, we classified it as Category 2A-2B based on the description that the eyes may be stimulated by contact (HSFS (2000)), and on the description that it stimulated the eyes (SITTIG (4th, 2002)).
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available

5	Germ cell mutagenicity	Category 1B	Health hazard	Danger	May cause genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is the positive results in the dominant fatality examination using the mouse and rat, which are an in vivo multigeneration mutagenicity test using a germ cell, the reciprocal translocation examination using a mouse, and the specific locus test using a mouse (RTECS, 2005). So it is set as Category 1B.
6	Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It was classified into group 2B (IARC Suppl.7, 1987) in IARC, 2B in Japan Assoc. of Industrial Health (industrial hygiene academic society recommendation, 2005), and R (NTP RoC 11th, 2005) in NTP. So it was set as Category 2.
7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Although there was no descriptions on general toxicity of parent animals, it was considered as Category 2 based on the description that impact on fertility and fetus lethal action were observed in the study which administered orally to male rat and a male mouse (RTECS (2005)).
8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	Although there was no concrete case report, it was judged as respiratory irritant because of a description in HSFS (2000) referring to that noses and throats may be stimulated by inhalation, and of a description in SITTIG (4th, 2002) referring to that it was mucosal irritation. So determined to be Category 3 (respiratory irritant).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	No 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)	Classification not possible	-	-	-	Insufficient data available.
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	Classification not possible due to lack of data