

GHS Classification

ID806

silane

CAS 7803-62-5

Date Classified: Mar. 15, 2007 (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	-	-	-	Gas (GHS definition)
2 Flammable gases	Category 1	-	Danger	Extremely flammable gas	Category 1 because the lower flammable limit is 1.37-100 vol%.
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not classified	-	-	-	The substance is a reducing agent.
5 Gases under pressure	Compressed gas	Gas cylinder	Warning	Contains gas under pressure; may explode if heated	Compressed gas because of "the critical temp: -4degC" (Hommel, 1991) and the actual state in a usual circulation.
6 Flammable liquids	Not applicable	-	-	-	Gas (GHS definition)
7 Flammable solids	Not applicable	-	-	-	Gas (GHS definition)
8 Self-reactive substances and mixtures	Not applicable	-	-	-	Gas (GHS definition)
9 Pyrophoric liquids	Not applicable	-	-	-	Gas (GHS definition)
10 Pyrophoric solids	Not applicable	-	-	-	Gas (GHS definition)
11 Self-heating substances and mixtures	Not applicable	-	-	-	Gas (GHS definition)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	-	-	-	Gas (GHS definition)
13 Oxidizing liquids	Not applicable	-	-	-	Gas (GHS definition)
14 Oxidizing solids	Not applicable	-	-	-	Gas (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Gas (GHS definition)
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to gas substances are not available

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Classification not possible	-	-	-	No data available
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Category 5	-	Warning	May be harmful if inhaled	It become out of Category 4 according to rat LC50 = 9600ppm/4hr (ACGIH (7th, 2001)) (Priority 1 document). But rat LC50 = 4000ppm/4hr (HSDB (2005)) (Priority 2 document) are suitable for Category 4. And there are the nonsurviving animals up to the dose to Category 4, it was considered as Category 5.
1 Acute toxicity (inhalation: dust, mist)	Not applicable	-	-	-	Gas (GHS definition)
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	There are description that indicates skin irritation on humans (ACGIH (7th, 2001), ICSC (J) (1997), HSFS (2001), and SITTIG (4th, 2002)). The animal examination data can be used as segment indicators was not found. But there are descriptions of "strong stimulative" (HSFS (2001) and SITTIG (4th, 2002)) and with regard of safety, it was classified as Category 2.
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	ACGIH (7th, 2001), ICSC (J), (1997), HSFS (2001), and SITTIG (4th, 2002) have description which indicates eye irritations in humans. Although the data of the animal tests used as the index of subdividing was not found. But it was set as Category 2A in consideration that there is the statement of "severe irritations", and of the safety.
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)-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	The in vivo test data was not found and there was one positive in vitro report by the reverse mutation test (RTECS, 2004), however, we could not classify it since data was insufficient.
6 Carcinogenicity	Classification not possible	-	-	-	No data available

7	Toxic to reproduction	Classification not possible	-	-	-	No data available
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)	Classified as Category 3 (respiratory irritant) because ICSC (J) (1997), HSFS (2001) and SITTIG (4th, 2002) have descriptions that respiratory irritation is found in humans.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (lung)	Health hazard	Warning	may cause damage to organs (lung) through prolonged or repeated	There is a statement that a pulmonary fibrosis is occurred in humans (DHP (13th, 2002) of Priority 2 document), and it was classified into Category 2 (lungs).
10	Aspiration hazard	Not applicable	-	-	-	Gas (GHS definition)

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Classification not possible	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.