

GHS Classification

ID922

Ethene, fluoro-

CAS 75-02-5

Date Classified: Oct. 1, 2005 (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 (with stabilizer)	-	Danger	Extremely flammable gas	Ignitable when in a mixture of 13% or less by volume in air. UNRTDG Class: 2.1
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not classified	-	-	-	Not classified in UNRTDG Subsidiary risks Class: 5.1
5 Gases under pressure	Liquefied gas	Gas cylinder	Warning	Contains gas under pressure; may explode if heated	Critical temp: >-50degC (Partially liquid at temperatures above -50degC)
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)	Not applicable	-	-	-	Gas (GHS definition)
1 Acute toxicity (dermal)	Not applicable	-	-	-	Gas (GHS definition)
1 Acute toxicity (inhalation: gas)	Not classified	-	-	-	It was considered as the outside of Category. Based on the outline of rat lethal concentration at being exposed for 12.5 hours: >800000ppm (ACGIH 7th, 2001).
1 Acute toxicity (inhalation: dust, mist)	Not applicable	-	-	-	Gas (GHS definition)
2 Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is a positive result by the micronucleus test which used the rat and mouse erythrocyte, which are the in vivo mutagenicity tests using a somatic (ACGIH 7th, 2001, IARC 63, 1995), and there is no positive result by the in vivo genotoxicity study using a germ cell. So it is set as Category 2.

6	Carcinogenicity	Category 1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It was classified into group 2A (IARC 63, 1995) in at IARC, 2A (it and) in Japan Assoc. of Industrial Health (industrial hygiene academic society recommendation, 2005), A2 (ACGIH 7th, 2001) in ACGIH and R (NTP RoC 11th, 2005) in NTP. So it was considered as Category 1B.
7	Toxic to reproduction	Classification not possible	-	-	-	No data available
8	Specific target organs/systemic toxicity following single exposure	Category 3 (narcotic effects)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects)	From description in ACGIH (7th, 2001) and IARC 63 (1995) that headaches or dizziness may be caused in humans by exposure to vapor, it was judged that it had transient and mild effects on the central nervous system, and it was set as Category 3 (anesthetic actions).
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	Based on the description that the effects on the liver was observed with the concentration of the guidance value range of Category 2 in the inhalation exposure test for 90 days using the rat and mouse (ACGIH (7th, 2001) and IARC 63 (1995)), we classified into Category 2 (liver).
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.