

GHS Classification

ID921

Ethene, 1,1-difluoro-

CAS 75-38-7

Date Classified: Jun. 20, 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	-	-	-	Gas (GHS definition)
2 Flammable gases	Category 1	-	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	-	-	-	Liquid at a test temperature, 55degC. Test methods applicable to solid 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	-	-	-	Since the non-fatal dose (4 hour translation: 100000ppm) (SIDS, 2001) by rat inhalation was over 5000ppm, it was considered as the outside of Category.
1 Acute toxicity (inhalation: dust, mist)	Not applicable	-	-	-	Gas (GHS definition)
2 Skin corrosion / irritation	Not classified	-	-	-	Since it was gas, skin irritation test was not carried out. But there was no skin irritation as a result of other toxic examinations (SIDS, 2001), it considered as the outside of Category.
3 Serious eye damage / eye irritation	Not classified	-	-	-	The data of the ocular irritational examination was not obtained. But we classified it as Out Of Category since it did not show ocular irritant property as the result of acute, repeated, and a long-term inhalation atmospheric exposure test (SIDS, 2001).
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Not classified	-	-	-	Since it was negative in the micronucleus test (SIDS, 2001) which uses the mouse bone marrow cells of in vivo, it carried out the outside of Category.
6 Carcinogenicity	Not classified	-	-	-	Since it was classified into a group 3 in IARC and A4 in ACGIH, it was considered as the outside of Category.

7	Toxic to reproduction	Classification not possible	-	-	-	It cannot be classified based on the description that while the test results that disorders were observed in spermatogenesis of the testis and the epididymis in the high-dose group (7000, 40000 product portfolio managements, and 6 hours/(day)) in the male rat 13-week inhalation exposure test (Appleman et al., 1985) (SIDS (2001)), the description which it was not reappeared in other examinations (Reuzel et al, 1986) (in 3 dosage at highest of 7000 ppm 6 hours/day in inhalation exposure test for 13 weeks, it is not increased gross and histopathologically that spermary concentration, sperma count of abnormal head/tail and separated sperma head/tail count in juvenile and young adult rat, and no-influenced concentration (NOEC) of fecundability is 7000 ppm), and the description that it is no effects of complex exposure in rat pre mating and early pregnant period inharation exposure test and fetal period of organogenesis
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)	Although gait disturbance and etc., are indicated in rats at 400000 – 800000ppm (SIDS, 2001; DFGOT, vol.5, 1993; ACGIH 7th, 2001), all were over the guidance value of Category 2. On the other hand, from description (Hommel (1991)) that there are weak anesthetic actions, such as dizziness, drowsiness, unconsciousness, etc., in human exposure, it was set as Category 3 (anesthetic actions).
9	Specific target organs/systemic toxicity following repeated exposure	Not classified	-	-	-	In the repeated inhalation exposure test for 90 days in the rat, significant toxicity with the administration of the compounds was not observed on the dose exceeding the guidance value range of Category 2(SIDS (2002), ACGIH (7th, 2001)), we categorized it to be Out Of Category.
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.