

GHS Classification

ID878

Ethane, nitro-

CAS 79-24-3

Date Classified: May 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 classified	-	-	-	UNRTDG Class: 3
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: >=23degC and <=60degC, UNRTDG Class: 3, PGIII
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Not classified	-	-	-	Classified in UNRTDG Class: 3
9 Pyrophoric liquids	Not classified	-	-	-	Flash point: 410degC (Hommel, 1991 Card No.296)
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 classified	-	-	-	UNRTDG Class: 3
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
16 Corrosive to metals	Not classified	-	-	-	UNRTDG Class: 3

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: 1625 mg/kg REFERENCE SOURCE: DFGOT vol.19 (2003)
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	-	-	-	There were descriptions that toxic phenomena was not observed on rats with 6-hour inhalation exposure to 2200 ppm (4 hour equivalent: 8.256mg/L), and all rats died with 6 - 7 hour exposure to 13,000 ppm (4-hour equivalent: 48.785mg/L considering that exposure was for 6 hours) in ACGIH (7th, 2001). But category could not be specified and it cannot be classified due to data insufficiency.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Not classified	-	-	-	It was carried out the outside of Category from description that irritation was not admitted in the skin irritation test using the rabbit on HSDB (2005), and description that the irritation to the rabbit skin was weak on DFGOT (vol.19, 2003) .
3 Serious eye damage / eye irritation	Not classified	-	-	-	There is the description that in the eye irritation tests using the rabbit, change of the eye which is adapted for classification standards of irritation was not acknowledged (HSDB (2005)), and irritation to conjunctival of the rabbit is weak (DFGOT (vol.19, 2003)). So it was set as the outside of Category.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	Respiratory organ: No data. Skin: Since sensitizing property was not acknowledged in Draize test using the guinea pigs of HSDB (2005), it is possible that it is Out Of Category, but we presupposed that we could not classify it for the insufficiency of data.
5 Germ cell mutagenicity	Not classified	-	-	-	Since there was a negative result with the micronucleus test on mouse red corpuscles, which is an in vivo mutagenicity test using somatic cells (DFGOT vol.19, 2003, PATTY 4th, 1994), it was classified as out of Category.
6 Carcinogenicity	Classification not possible	-	-	-	It might be out of Category based on the description that carcinogenic was not observed in an inhalation exposure test for two years using the rat in DFGOT (vol.19, 2003) and PATTY (4th, 1994). But it was presupposed that it could not be classified due to insufficient data.

7	Toxic to reproduction	Classification not possible	-	-	-	Classification not possible due to lack of data
8	Specific target organs/systemic toxicity following single exposure	Category 1 (blood system); Category 3 (respiratory tract irritation, narcotic effects)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (blood system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation, narcotic effects)	From description in DFGOT (vol.19, 2003) that cyanosis and increase in methemoglobin was seen in 2 children's cases in which oral ingestion was carried out, it was set as Category 1 (blood). Moreover, from description in DFGOT (vol.19, 2003) that respiratory irritant and anesthetic actions were seen in rabbits and guinea pigs in the test which inhalation exposure was carried out, it was set as Category 3 (respiratory irritant, anesthetic actions).
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Although there are the description that in the 2-years inhalation exposure test using the rat, toxicity was not observed (DFGOT (vol.19, 2003), PATTY (4th, 1994)), and the description that in the 13-weeks inhalation exposure test using the rat and mouse, significant toxicity was not observed with the concentration in the Category 2 guidance value range (HSDB (2005)), it was presupposed that it cannot be classified because of insufficient data, since the minimum value which discovers the effect considered to endorse the classification was not clear.
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