

GHS Classification

ID745

chlorine trifluoride

CAS 7790-91-2

Date Classified: Apr. 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	Not classified	-	-	-	Non-combustible (ICSC(J), 1997)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Category 1	Flame over circle	Danger	May cause or intensify fire; oxidizer	UNRTDG No. 1749, Class: 2.3, Subsidiary risks Class: 5.1; 8
5 Gases under pressure	Liquefied gas	Gas cylinder	Warning	Contains gas under pressure; may explode if heated	Liquefied gas because of "the critical temp: 153degC" (Weiss, 2nd, 1985).
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 2	Skin and crossbones	Danger	Fatal if inhaled	It was considered as Category 2 based on rat LC50 = 149ppm.
1 Acute toxicity (inhalation: dust, mist)	Not applicable	-	-	-	Gas (GHS definition)
2 Skin corrosion / irritation	Category 1A-1C	Corrosion	Danger	Causes severe skin burns and eye damage	Based on the descriptions that it has severe irritation on dogs (HSDB (2005)) and that it causes severe burn (ICSC (1997)) or ulcer and burn difficult to recover (PATY (5th, 2001)) was brought about on human skin, it was classified as Category 1A-1C.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	With a dog, there is eyes severe irritation and severe ulcers is given rise to a cornea (HSDB (2005)). Furthermore, it is also a very strong stimulus in humans, ulcer of a cornea, and eternal eyesight loss were brought (HSDB (2005), ACGIH (2001), ICSC (1997)). So it was set as Category 1.
4 Respiratory/skin sensitization	Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	[Respiratory sensitization] No data. [Skin sensitization] No data
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
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 1 (respiratory organs)	Health hazard	Danger	Cause damage to organs (respiratory organs)	Based on the statement that serious respiratory irritation, breathing difficulty, a spasm in humans (PATTY (5th, 2001), HSDB (2005) , ICSC (1997)), and the views that the emphysema and pulmonary oedemas, etc. in rats (PATTY (5th, 2001)), it is classified into Category 1 (respiratory tracts).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (lung)	Health hazard	Danger	Causes damage to organs (lung) through prolonged or repeated exposure	In the inhalation exposure test using dogs and rats, in addition to the symptom of respiratory disorder, congestion of lung, pulmonary edema and pneumonia etc. are observed as a pathologic findings (PATTY (5th, 2001), ACGIH (2001), RTECS (2004)). According to that and the amount of exposure was compared with the guidance value, it was classified into Category 1 (lungs).
10	Aspiration hazard	Not classified	-	-	-	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.