

GHS Classification

ID1050

sulphur tetrafluoride

CAS 7783-60-0

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 | Not classified | - | - | - | Non-combustible (ICSC(J), 2003) |
| 3 Flammable aerosols | Not applicable | - | - | - | Not aerosol products |
| 4 Oxidizing gases | Not classified | - | - | - | Not classified because it is UNRTDG No. 2418, Class: 2.3(8) but not Subsidiary risks Class: 5.1. |
| 5 Gases under pressure | Liquefied gas | Gas cylinder | Warning | Contains gas under pressure; may explode if heated | Liquefied gas because of "the boiling point: -40degC" (ICSC(J), 2003) and 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 | - | - | - | UNRTDG is classified into 2.3 (8) according to the UNRTDG No. (2418). Although ICSC (J)(2003) have the description "it corrodes metal", test methods suitable for gaseous substances are not established. |

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 1 | Skin and crossbones | Danger | Fatal if inhaled | It was considered as Category 1 from rat LC50 = 19ppm/4hr (ACGIH (7th, 2001)). |
| 1 Acute toxicity (inhalation: dust, mist) | Not applicable | - | - | - | Gas (GHS definition) |
| 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 | Since there was a statement which indicated caustic to the skin in humans (ICSC (J), (2003), SITTIG (4th, 2002), HSFS (2000)), it was set as Category 1A-1C. [view] It is more desirable to be set as 1A from a viewpoint of safety, when subdivision needs to be performed. |
| 3 Serious eye damage / eye irritation | Category 1 | Corrosion | Danger | Causes serious eye damage | In humans, there was description which shows corrosiveness (ICSC (J), (2003), SITTIG (4th, 2002), HSFS (2000)) or irritation (ACGIH (7th, 2001)) to the eye, so it was classified into Category 1. |
| 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 | - | - | - | 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 (inhalation:respiratory); Category 3 (respiratory tract irritation) | Health hazard | Danger | Cause damage to organs (inhalation:respiratory); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation) | The substance was classified as Category 1 (inhalation: respiratory system) and Category 3 (airway irritant) because in Priority 1 there is an accident case example in which the substance affected the respiratory system after inhalation in humans, and a report of airway irritation properties (ACGIH (7th, 2001)). |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Category 1 (respiratory organs); Category 2 (bone, tooth) | Health hazard | Danger | Causes damage to organs (respiratory organs) through prolonged or repeated exposure; May cause damage to organs (bone, tooth) through prolonged or repeated exposure | The report that it affects the respiratory systems at the dose in which a guidance value is the range of Category 1 in inhalation experiment of rats, is written in the document of Priority 1 (ACGIH (7th, 2001)). Moreover, since there is description of fluoride deposition to bone and tooth of human in Priority 2 (ICSC(J)(2003), SITIG (4th, 2002) and HSFS (2000)), it was classified into Category 1 (respiratory system) and Category 2 (skeletal and teeth). |
| 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. |