

GHS Classification

ID1029

titanium trichloride

CAS 7705-07-9

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	-	-	-	There are no chemical groups associated with explosive properties present in the molecules.
2 Flammable gases	Not applicable	-	-	-	Solid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Solid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Solid (GHS definition)
6 Flammable liquids	Not applicable	-	-	-	Solid (GHS definition)
7 Flammable solids	Classification not possible	-	-	-	Although Sax (11th, 2004) states it as "inflammable", there is no test data, and it cannot be classified.
8 Self-reactive substances and mixtures	Not applicable	-	-	-	There are no chemical groups associated with explosive or self-reactive properties present in the molecule.
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Category 1	Flame	Danger	Catches fire spontaneously if exposed to air	Category 1 because of UNRTDG No. 2441, Class: 4.2, I
11 Self-heating substances and mixtures	Not applicable	-	-	-	Pyrophoric solids
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Although Sax (11th, 2004) had the description that "heat and hydrochloride will be produced if moisture is contacted", it was carried out the outside of category since hydrochloride was nonflammable.
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Not classified	-	-	-	Reducing substance (Merck, 13th, 2001)
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to solid substances are not available. UNRTDG No. 2441, Subsidiary risks Class: 8

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 3	Skull and crossbones	Danger	Toxic if swallowed	There is no data of this product. However, since oral administration of rat LD50 value as 3 titanium chloride solutions (20% titanium chloride hydrochloride solution) is 130mg/kg (poisonous and deleterious pharmaceuticals foods sanitation councils toxic substances subcommittees information), at least this substance contains the toxicity level of category 3. Therefore, it was classified as category 3.
1 Acute toxicity (dermal)	Classification not possible	-	-	-	There was no data of this substance. Rat dermal LD50 value as 3 titanium chloride solution (20% titanium chloride chloride solution) was 2000mg/kg or more (poisonous and deleterious pharmaceuticals foods sanitation councils toxic substances subcommittees information, 2003). But for guessing the toxicity of this substance, data is
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Solid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 1A-1C	Corrosion	Danger	Causes severe skin burns and eye damage	There is no data of this product. But there is a description that very strong corrosion toxicity was acknowledged in the acute dermal toxicity test of the rat as 3 titanium chloride solutions (20% titanium chloride solution) (therefore, this skin corrosiveness / stimulative study was not done)(pharmaceuticals/ foods sanitation councils toxic substances deleterious substances subcommittees information, 2003), it was reset as Category 1A-1C. [view] It is more desirable to be set as 1A from a safety, when subdivision needs to be performed.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	There was no examination data to the eye. But skin corrosivity is indicated, it is believed that there was causticity also to the eye, 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	-	-	-	There is no data from general reproduction toxicity tests (there is only data of the medication in a testis), and data is insufficient, it cannot be classified.
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	No data available.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	No data available
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