

## GHS Classification

**ID543**

**CAS 7446-07-3**

### Physical Hazards

**Tellurium dioxide**

Date Classified: Sep. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Not applicable	—	—	—	Containing no chemical groups with explosive properties
2 Flammable gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
5 Gases under pressure	Not applicable	—	—	—	Classified as "solid" according to GHS definition
6 Flammable liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
7 Flammable solids	Not classified	—	—	—	Considered non-flammable because tellurium, which can be produced by burning tellurium (Te) in air, is a stable oxide existing in nature as a mineral (Chemical Dictionary, 1994).
8 Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
10 Pyrophoric solids	Not classified	—	—	—	Considered non-flammable because tellurium, which can be produced by burning tellurium (Te) in air, is a stable oxide existing in nature as a mineral (Chemical Dictionary, 1994).
11 Self-heating substances and mixtures	Not classified	—	—	—	Tellurium oxide is considered non-flammable because it is obtained by burning tellurium (Te) in air and it is a stable oxide occurring in nature as a mineral (tellurite) (Chemical Dictionary, 1994).
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	—	—	—	Stable to water (insoluble, Lide (84th, 2003))
13 Oxidizing liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
14 Oxidizing solids	Classification not possible	—	—	—	Classification not possible due to lack of data, though being inorganic compounds containing oxygen
15 Organic peroxides	Not applicable	—	—	—	Not organic compounds
16 Corrosive to metals	Classification not possible	—	—	—	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 classified	—	—	—	Based on the rat LD50 (oral route) value of >5,000mg/kg (RTECS (2004)).
1 Acute toxicity (dermal)	Classification not possible	—	—	—	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is "solid" according to the GHS definition and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	—	—	—	No data available
1 Acute toxicity (inhalation: gas)	Classification not possible	—	—	—	No data available
2 Skin corrosion / irritation	Classification not possible	—	—	—	No data available
3 Serious eye damage / eye irritation	Classification not possible	—	—	—	No data available
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) —	Respiratory sensitization: No data available 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	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the evidence of adverse effects on pup development (malformation and fetal death), described in RTECS (2006) (though no data are available regarding parental toxicity).
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	Insufficient data available. Refer to "Tellurium" (ID.0236, CAS,13494-80-9).
9 Specific target organs/systemic toxicity following repeated exposure	Category 2 (nervous system)	Health hazard	Warning	May cause damage to organs through prolonged or repeated exposure (nervous system)	Based on the evidence from animal studies including "effects on the parasympathetic nervous system, muscle contraction/twitching" (RTECS (2004)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 2. Refer to "Tellurium" (ID.0236, CAS,13494-80-9).

10	Aspiration hazard	Classification not possible	-	-	-	No data available
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### Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Not classified	-	-	-	Since it was suggested that relevant toxicity is not indicated in the water solubility (6.7mg/L(Merck 13th, 2001)) of this substance, according to from 96-hour LC50>1000000microg/L of the fish (Fundulus Heteroclitus) (AQUIRE (2003)), it was classified into Not classified.
11 Hazardous to the aquatic environment (chronic)	Category 4	-	-	May cause long lasting harmful effects to aquatic life	Since although acute toxicity is not reported within the aqueous solubility concentrations, it was a metallic compound, and the underwater action was unknown, it was classified into Category 4.