

## GHS Classification

**ID1030**

**boron trichloride**

**CAS 10294-34-5**

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), 1997)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not classified	-	-	-	Not classified because it is UNRTDG No. 1741, Class: 2.3(8) but not Subsidiary risks Class: 5.1.
5 Gases under pressure	Liquefied gas(Low pressure liquefied gas)	Gas cylinder	Warning	Contains gas under pressure; may explode if heated	Low pressure liquefied gas because of "the critical temp: 178degC" (HSDB, 2002)
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 suitable for gaseous substances are not established. (8 is given to Subsidiary risk of UNRTDG. ICSC (J) (2002) have the description that "it corrodes many metals under presence of water.")

**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 3	Skin and crossbones	Danger	Toxic if inhaled	It was considered as Category 3 based on rat LC50 value of 1270ppm/4H (2541ppm/1H) (HSDB, 2002).
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	There is description which indicates the skin corrosivity in humans (ICSC (J), (1997), HSDB (2002), and SITTIG (4th, 2002)). But there was no data of the animal experiment used as the index of subdivision. So it was set as Category 1A-1C.
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	There is the description which indicates the oculo corrosiveness in human (ICSC (J), (1997), SITTIG (4th, 2002), and HSFS (2001)), and 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 2 (respiratory)	Health hazard	Warning	May cause damage to organs (respiratory)	The substance was classified as Category 2 (respiratory system) because there are reports of pulmonary edema due to its airway corrosive properties in humans in ICSC (J) (1997) and SITTIG (4th, 2002), which are Priority 2 documents.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Although we found the description that it had effect on liver, the kidney, and a central nervous system in human ( SITTIG (4th, 2002; Priority 2 document)), there was no corroborative data and we could not classify it because of the lack of data
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.