

## GHS Classification

**ID197**

**Disodium tetraborate, anhydrous**

**CAS 1330-43-4**

Date Classified: Jul. 24, 2006 (Environmental Hazards: Sep. 20, 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	—	—	—	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	—	—	—	Non-flammable (ICSC, 1999)
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	—	—	—	Non-combustible (ICSC, 1999)
11 Self-heating substances and mixtures	Not classified	—	—	—	Non-combustible (ICSC, 1999)
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	—	—	—	Stable to water (water solubility: 2.56g/100mL (20degC), ICSC (1999))
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 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)	Category 4	Exclamation mark	Warning	Harmful if swallowed	Based on the rat LD50 (oral route) value of 1,200mg/kg representing the lower of the two testing data, 1,200mg/kg (RTECS (2005)) and 2,660mg/kg (HSDB (2005)).
1 Acute toxicity (dermal)	Classification not possible	—	—	—	Insufficient 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: dust, mist)	Classification not possible	—	—	—	Insufficient data available
2 Skin corrosion / irritation	Classification not possible	—	—	—	No data available. As for the health hazards, refer to "ID:0198, CAS No:1303-96-4, Sodium Tetraborate (10 hydrate)."
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	Based on the description of the human health effects (ECETOC TR63 (1995)): "Sodium tetraborate, in the form of dust, causes eye irritation," though the severity of the effects are not presented. The substance should be placed in Category 2A from the viewpoint of safety if further subclassification is needed.
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 As for the health hazards, refer to "ID:0198, CAS No:1303-96-4, Sodium Tetraborate (10 hydrate)." Skin sensitization: No data available As for the health hazards, refer to "ID:0198, CAS No:1303-96-4, Sodium Tetraborate (10 hydrate)."
5 Germ cell mutagenicity	Classification not possible	—	—	—	No data available As for the health hazards, refer to "ID198, Sodium Tetraborate (10 hydrate), CAS: 1303-96-4" and "ID491, Boric Acid, CAS: 10043-35-3."
6 Carcinogenicity	Not classified	—	—	—	Due to the fact that the substance is classified as Category A4 (borates compounds, inorganic [1330-43-4; 1303-96-4; 10043-35-3; 12179-04-3]) by ACGIH (2005).
7 Toxic to reproduction	Classification not possible	—	—	—	No data available As for the health hazards, refer to "ID198, Sodium Tetraborate (10 hydrate), CAS: 1303-96-4" and "ID491, Boric Acid, CAS: 10043-35-3."
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	No data available * As "inorganic borate exists as boric acid in a diluted aqueous solution of physiological pH," (PATTY (4th, 2000)), refer to "Sodium Tetraborate (10 hydrate) (ID: 0198)" and "Boric Acid (ID: 0491)."
9 Specific target organs/systemic toxicity following repeated exposure	Category 1 (respiratory organs)	Health hazard	Danger	Causes damage to organs through prolonged or repeated exposure (respiratory)	Based on the human evidence including "nasal/eye/pharyngeal irritation, coughing and short of breath" (EHC 204 (1998)). * As "inorganic borate exists as boric acid in a diluted aqueous solution of physiological pH," (PATTY (4th, 2000)), refer to "Sodium Tetraborate (10 hydrate) (ID: 0198)" and "Boric Acid (ID: 0491)."
10 Aspiration hazard	Classification not possible	—	—	—	No data available

## Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
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11	Hazardous to the aquatic environment (acute)	Not classified	-	-	-	It was classified into Not classified from 96-hour LC50=74mg boron/L (Sodium Tetraborate Equivalent: 1378mg/L) of the fish (Pleuronectes Yokohamae Gunther) (EHC204, 1998).
11	Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since it was not water-insolubility (the water-solubility =25000mg/L (HSDB, 2004)), and acute toxicity was low, it was classified into Not classified.