

GHS Classification

ID1330

CAS 1304-28-5

Physical Hazards

barium oxide, obtained by calcining witherite

Date Classified: Oct. 23, 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	-	-	-	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	Not classified	-	-	-	Nonflammable (ICSC (J), 1999). (However, since this product may react with other substances and burn, cautions are required.)
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	Not classified	-	-	-	Non-combustible (ICSC (J), 1999)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (1999))
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	UNRTDG is classified into 6.1 and III according to the U.N. number (1884) peculiar to a substance. Since 4.3 which indicates a water reaction inflammability chemistry article was not attached, it carried out the outside of Category. (Since a high fevers is emitted when the this product reacts with water and barium hydroxide is generated, extreme cares are required.)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	Inorganic compound
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)	Classification not possible	-	-	-	No data available
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
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 3	-	Warning	Causes mild skin irritation	It was set as category 3 from the description that there is a stimulus, redness, and a pain to the human skin (ICSC(J), 1999; HSFS, 2002), and that it stimulates the skin as water-soluble barium compounds (ACGIH-TLV, 2005).
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	It was set as Category 2B from description that there are stimulus, redness and pain to the human eye (ICSC(J), 1999; HSFS, 2002), and the eye is stimulated as water-soluble barium compounds (ACGIH-TLV, 2005).
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 (digestive system, heart, muscles); Category 2 (nervous system); Category 3 (respiratory tract irritation)	Health hazard	Danger	Causes damage to organs (digestive system, heart, muscles); May cause damage to organs (nervous system); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	It was considered as Category 1 (a digestive systems, the heart, muscles), Category 2 (nervous system), and Category 3 (respiratory irritant) based on the description that gastrointestinal irritation, muscle disorder (ACGIH-TLV, 2005), gastroenteritis, hypokalemia, high blood pressure, arrhythmia, and skeletal muscle paralysis (CICAD 33, 2001) are caused, and it stimulates the human respiratory tract, affects a nervous system, causes hypokalemia and may produce heart damages / muscle disorders as a water-soluble barium compounds (ICSC (J), 1999).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (respiratory organs)	Health hazard	Danger	Causes damage to organs (respiratory organs) through prolonged or repeated exposure	It was classified into Category 1 (respiratory systems) based on description of bronchitis (CICAD 33, 2001) and of stimulation to lungs in repeated exposure (HSFS, 2002).
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	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.