

GHS Classification

ID1317

lead carbonate

CAS 598-63-0

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	-	-	-	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	-	-	-	Non-combustible (ICSC (J) (2001))
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), 2001)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (2001))
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (the water solubility is obtained)
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	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)-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data. In addition, in ATSDR (draft, 2005), there is the description that lead induces chromosome aberration to humans, and the inorganic lead compound is classified into the germ cell mutagenicities 3A (equivalent to GHS Category 1B-2) according to MAK/BAT (2005).

6	Carcinogenicity	Category 1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is no data of this product. But as a lead compound, it is equivalent to Category 1B (inorganic lead compounds, Group 2A) in IARC87 (2004), equivalent to Category 1B-2 (Reasonably anticipated to be human carcinogens) in NTPRoC (11th, 2005), and equivalent to Category 2 (respectively B-2, A3, 2B) in IRIS (1993), ACGIH-TLV (2005), and Occupational Health Society advice (2005). Therefore, it was set as Category 1B according to Group 2A of IARC87 (2004).
7	Toxic to reproduction	Category 1A	Health hazard	Danger	May damage fertility or the unborn child	Since ICSC (J) (2001) of Priority 2 document has the description that "Significant reproductive toxicity is caused in humans," and ACGIH-TLV (2005) and ATSDR (draft, 2005) of Priority 1 document, etc. state that lead (inorganic lead compound) indicates reproductive toxicity in humans, it was set as Category 1A.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (central nervous system, blood system, kidneys)	Health hazard	Danger	Cause damage to organs (central nervous system, blood system, kidneys)	Although there is description (NTPRoC, 2004) that the incidence (spasms, nausea, vomiting) on a nervous system or an alimentary system was observed in the data (LDLo 571mg/kg) of the lowest fatal dose in human oral exposure of the product, it is the data near the fatal dose and treats as reference. On the other hand, in CERH Hazard Data 2001-9 (2001) of Priority 1 document there is description that "in acute effects and chronic effects, almost the same symptoms were observed" as human impact of inorganic lead compound, and in ACGIH-TLV (2005), inorganic lead compounds effect on the central nervous systems, blood, and renal, so it was considered as Category 1 (a central nervous system, blood, kidneys).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (central nervous system, blood, kidneys)	Health hazard	Danger	Causes damage to organs (central nervous system, blood, kidneys) through prolonged or repeated	Based on description that a human central nervous systems, blood, and the kidney are affected in repeated exposure of this product (ICSC (J), 2001), that the effect was observed on blood and the kidney in the two-year repetitive exposure test of a rat (RTECS, 2004), and that inorganic lead compounds had effects on central nervous systems, blood, and the kidney (ACGIH-TLV (2005) of Priority 1 document), it was classified into Category 1 (a central nervous systems, blood, kidney).
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)	Not classified	-	-	-	Since it was suggested from 96-hour LC50 > 5000000 microg/L of fishes (Fathead minnows) (AQUIRE, 2003) that relevant toxicity is not indicated in the water solubility (1.1 mg/L (PHYSPROP Database, 2005)) of this substance, it carried out the outside of Category.
11 Hazardous to the aquatic environment (chronic)	Category 4	-	-	May cause long lasting harmful effects to aquatic life	Classified into Category 4, since it is a metallic compound, and behavior in water is unknown, though no acute toxicity is reported within the saturated aqueous solution.