

GHS Classification

ID1089

lead arsenite

CAS 10031-13-7

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) (1999))
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	-	-	-	Stable to water (insoluble in water)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Not classified	-	-	-	UNRTDG No. 1618, Class: 6.1; PG II (Not 5.1).
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	From the description that irritation is indicated in the human skin (ICSC, 1999;HSFS, 2001), and the description that irritation is indicated as an inorganic arsenic (PIM 042, 1996;DFGOT vol.21, 2005) , it was judged that it had slight irritation and was set as category 3.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	Due to the descriptions that it irritates to human eyes (ICSC, 1999; HSFS, 2001), and that inorganic arsenic dust shows eye irritation (HSG 70, 1992-IM 042, 1996), it was classified into Category 2B.
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: by the this substance (ICSC, 1999), or it is not firm conclusions although skin sensitization may be shown to humans as an inorganic arsenic compound (ATSDR, 2005; PIM 42, 1996), in addition, the description in the humans "development of the skin sensitization of inorganic arsenic is rare" of EHC 224 (2001), and there is a negative report in a guinea pig examination (maximization test) as an inorganic arsenic compound (ATSDR, 2005; EHC 224, 2001), it was presupposed that it cannot classify according to the shortage of data.
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There is no this product data, chromosome aberration or micronucleus is induced to humans (peripheral blood) or rodents (marrow) as an inorganic arsenic compound (DFGOT vol.21, 2005; EHC 224, 2001; PATTY 5th, 2001; IARC Suppl.7, 1987; IARC 84, 2004; ATSDR draft, 2005). And a lead (inorganic lead compound) induces a human heterochromosome in ATSDR, and the inorganic arsenic compound and the inorganic lead compound are classified into 3A in MAK/BAT(2005). So it is set as 2. In addition, the inorganic arsenic (As+3) was negative in the dominant fatality examination and the mouse energy proto-cell chromosomal aberration test (ATSDR draft, 2005).

6	Carcinogenicity	Category 1A	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	No finding of this product is observed. But inorganic arsenic compound is categorized into human carcinogen in IARC(IARC Suppl.7, 1987; IARC 84, 2004), ACGIH(ACGIH, 7th, 2001), DFG(MAK/BAT, 2005), NTP(NTP RoC 11th, 2005). Therefore, it was classified into Category 1A. In addition, as lead compound (inorganic), it corresponds to Category 1B (Group 2A) in IARC 87 (2004), it corresponds to Category 1B-2 in NTP RoC (11th, 2005) (Reasonably anticipated to be human carcinogens), and it corresponds to Category 2 (B-2, A3, respectively) in IRIS (1993) and ACGIH-TLV (2005),.
7	Toxic to reproduction	Category 1B	Health hazard	Danger	May damage fertility or the unborn child	Although the specific knowledge about this product was not observed, this product will induce the reproductive toxicity seriously for humans (ICSC, 1999). And although there is a report which conflicts in ACGIH (7th, 2001), ATSDR (draft, 2005), EHC 224 (2001) and DFGOT vol.21 (2005) as an inorganic arsenic, the knowledge of the reproductive and developmental toxicity is indicated to laboratory animals, in addition, about a lead (inorganic lead compound), in ACGIH-TLV (2005), Proposition 65 (California EPA, 2005), ATSDR (draft, 2005), etc., was indicated reproductive toxicity to humans. So it was considered as Category 1B.
8	Specific target organs/systemic toxicity following single exposure	Category 2 (central nervous system, digestive system, cardiovascular system, kidneys); Category 3 (respiratory tract irritation)	Health hazard	Warning	May cause damage to organs (central nervous system, digestive system, cardiovascular system, kidneys); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	The substance was classified as Category 2 (central nervous system, gastrointestinal system, cardio-vascular system, kidneys) and Category 3 (airway irritant) based on the reports of the effects on the central nervous system, gastrointestinal system, cardio-vascular system and kidneys, and of its airway irritant properties in humans (ICSC, 1999; HSFS, 2001).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (skin, blood, cardiovascular system, kidneys, liver, nervous system)	Health hazard	Warning	May cause damage to organs (skin, blood, cardiovascular system, kidneys, liver, nervous system) through prolonged or repeated exposure	It was classified into Category 2 (the skin, blood, a cardiovascular systems, the kidney, liver, nervous system) based on the description that the influence on skin, mucosa, marrow, blood, cardiovascular systems, kidney, liver, and a nervous system to humans (ICSC, 1999;HSFS, 2001).
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.