

GHS Classification

ID1085

lithium hexafluoroarsenate

CAS 29935-35-1

Date Classified: Nov. 20, 2006 (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	Classification not possible	-	-	-	No data available
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	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
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	Category 2B	-	Warning	Causes eye irritation	Although there was no data about this product, due to the description that fluoride irritates to the eye (ACGIH-TLV, 2005; ACGIH 7th, 2001), 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 : although there is no data of this substance itself, skin sensitization may be indicated to humans as an inorganic arsenic, but it is not a deterministic conclusion (ATSDR, 2005; HSG, 1992), in addition, it was presupposed that it cannot classify from the description in the humans of EHC 224 (2001) "development of the skin sensitization of inorganic arsenic is rare" since data is insufficient.
5 Germ cell mutagenicity	Classification not possible	-	-	-	Without data. In addition, arsenic and inorganic arsenic compound are classified into the germ-cell mutagenicity category 3A (equivalent for GHS Category 1B-2) according to DFG (MAK/BAT, 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)	Since arsenic and arsenic compound are categorized into the human carcinogens in IARC Suppl.7 (1987), ACGIH-TLV (2004), and MAK/BAT (2004), it was classified into Category 1A.
7	Toxic to reproduction	Category 1A	Health hazard	Danger	May damage fertility or the unborn child	Although there is no data of this product, lithium listed "Chemically Induced Birth Defects" (reference-1 of a classifying guidelines) as a teratogen. Also in pregnant for lithium dose, it was reported of several cardiac anomaly delivery, teratogenicity to humans is suggested in "Catalog of Teratogenic Agents" (reference-2 of a classifying guidelines). Moreover, in ACGIH (7th, 2001), ATSDR (draft, 2005), EHC 224 (2001), and DFGOT Vol.21 (2005), although there was an opposite report, the reproductive and developmental toxicity knowledge by inorganic arsenic was indicated to laboratory animals. So it was considered as Category 1A.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (digestive system, cardiovascular system, nervous system, kidneys, liver, respiratory)	Health hazard	Danger	Cause damage to organs (digestive system, cardiovascular system, nervous system, kidneys, liver, respiratory)	Although there are no data for the substance itself, the substance was classified as Category 1 (gastrointestinal system, cardio-vascular system, nervous system, kidneys, liver, respiratory system) based on the reports that in the forms of the arsenic and inorganic arsenic compounds it causes "symptoms in the gastrointestinal organs, disorders in the functions of the cardio-vascular and nervous systems, myelosuppression, alteration in the blood system and nephropathy" in humans (EHC 224 (2001)), that it affects the liver, upper airways and lungs (ACGIH (7th, 2001)), and that the fluorides display airway irritant properties (ACGIH-TLV, 2005; ACGIH 7th, 2001).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (digestive system, cardiovascular system, nervous system, kidneys, liver, blood system, skin, respiratory organs, bone)	Health hazard	Danger	Causes damage to organs (digestive system, cardiovascular system, nervous system, kidneys, liver, blood system, skin, respiratory organs, bone) through prolonged or repeated	Although there was no data of this product itself, the description in human of EHC 224 (2001) about arsenic and inorganic arsenics compounds "gastrointestinal tract disorder, neuropathy, effect on blood system, and disorder of cardiovascular system, kidney and liver with the long term administration of inorganic arsenic were observed. Target organ are gastrointestinal, heart, brains and kidney. The skin, marrow and peripheral nerves were also affected" and in addition, the description of the effect on the upper respiratory tract and lungs (ACGIH (7th, 2001)), and fluorides indicates the effect (fluorosis) on respiratory tract stimulative and a bone (ACGIH-TLV, 2005; ACGIH 7th, 2001). Therefore it was considered as Category 1 (digestive tract, cardiovascular systems, a nervous systems, the kidney, liver, a blood system, the skin, a respiratory system, bone)
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.