GHS Classification

ID644 Aluminum chloride hexahydrate

CAS 7784-13-6 Date Classified: Apr. 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	Not classified	–	–	–	Non-combustible <anhydrous>(ICSC (2005))
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 <anhydrous>"(ICSC, 2005)
11	Self-heating substances and mixtures	Not classified	–	–	–	Non-combustible (anhydrous) (ICSC, 2005)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	–	–	–	UNRTDG No. 1726 (Aluminium chloride, anhydrous), Class: 8, PG II
13	Oxidizing liquids	Not applicable	–	–	–	Solid (GHS definition)
14	Oxidizing solids	Not classified	–	–	–	UNRTDG No. 1726 (Aluminium chloride, anhydrous), Class: 8, PG II
15	Organic peroxides	Not applicable	–	–	–	Containing no -O-O- structure
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 5	–	Warning	May be harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 3311 mg/kg REFERENCE SOURCE: RTECS (2004)
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 2	Exclamation mark	Warning	Causes skin irritation	There was a description "mild irritation" on human skin with intermittent application for three days (RTECS (2004)). Moreover, in the examination that investigated therapeutic effects of topical applications for four weeks on 12 symptomatic sweating sickness patients, three out of four patients who had irritations symptom disappeared one week afterward with continued treatment. But the remaining of one person had serious symptom and the medication was terminated (PubMED/NLM (2005)). From what stated above, it was thought to have irritativeness to the skin and was classified as Category 2.
3	Serious eye damage / eye irritation	Classification not possible	–	–	–	Insufficient 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)–	Respiratory sensitization: No data. , Skin sensitization: No data.
5	Germ cell mutagenicity	Classification not possible	–	–	–	Classification not possible due to lack of data
6	Carcinogenicity	Classification not possible	–	–	–	No data available

7	Toxic to reproduction	Classification not possible	–	–	–	There is a description that it was observed that no dameging to implantation of pregnant mouse but effect on fetal development, increased incidences of fetal internal bleeding and delayed ossification (HSDB (2005)). However, the administration route in this examination was via intravenous injection, and so it is difficult to have a clear judgement based on the limited information obtained and whether the reproductive potential of parent animals were affected or not is unknown. Based on the above-mentioned, it was deemed unable to be classified due to the insufficiency of data.
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	–	–	–	No data available.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	–	–	–	Classification not possible due to lack of data
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)	Category 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96-hour LC50=0.075mg Al/L (aluminium chloride hexahydrate concentration equivalent: 0.671mg/L) of fishes (Atlantic salmon) (EHC194, 1997).
11	Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, since acute toxicity was Category 1, and it is a metallic compound, behavior in water and bioaccumulative potential are unknown.