GHS Classification

ID1088 sodium dioxoarsenate

CAS 7784-46-5 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 (BGIA, GESTIS-database on hazardous substancess, Accessed in 2006)
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 (BGIA, GESTIS-database on hazardous substancess, Accessed in 2006)
11	Self-heating substances and mixtures	Not classified	–	–	–	Non-combustible (BGIA, GESTIS-database on hazardous substancess, accessed in 2006)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	–	–	–	Stable to water (readily soluble)
13	Oxidizing liquids	Not applicable	–	–	–	Solid (GHS definition)
14	Oxidizing solids	Not classified	–	–	–	UNRTDG No. 2027, 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)	Category 2	Skull and crossbones	Danger	Fatal if swallowed	Category 2 based on SPECIES: Rat; ENDPOINT: LD50; VALUE: 42mg/kg; REFERENCE SOURCE: EHC 224 (2001)
1	Acute toxicity (dermal)	Category 2	Skull and crossbones	Danger	Fatal in contact with skin	It was set as Category 2 based on rat LD50 = 150mg/kg (RTECS, 2004).
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	It was set as Category 2 from description of "which indicates stimulant to the skin" on Chemical Safety Data Sheets Vol.4 a/The Royal Society of Chemistry (1991) equivalent to Priority 2. Moreover, SITTIG (47th, 2002) has description of "irritation may be indicated in the skin, an eye, and membrane."
3	Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	There is the description that the similar descriptions in humans "(may) irritates to skin, eye, and membrane" (SITTIG (4th, 2002) of Priority 2 and Chemical Safety Data Sheets Vol.4 a/The Royal Society of Chemistry (1991) equivalent to Priority 2). So it was classified into Category 2. It is difficult to subdivide the Category 2A and 2B. [Indication] 2A is recommended based on the safety, when the Category needs to subdivide.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: no data available. Skin sensitization : from the description "development of the skin sensitization of inorganic arsenic is rare" in the humans of EHC 224 (2001) of Priority 1, and it was negative in maximization test of the guinea pig, it carried out the outside of Category.
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)	Although there is two or more knowledge which induces micronucleus/chromosome aberration in the in vivo mouse marrow from description of EHC 224 (2001), it is negative in the mouse dominant lethal tests. So it is set as 2.

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 all existing classified materials in IARC Suppl.7 (1987), ACGHI-TLV (2004), and MAK/BAT (2004) are categorized into human carcinogens (as arsenic and arsenic cmpds), it was classified into Category 1A.
7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the undorn child	It was considered as Category 2 from the description about the humans of EHC 224 (2001) of Priority 1 "effect on reproductive is suggested" and knowledge in animal "fetus toxicity and teratogenicity at the dosage in which maternal toxicity is observed " and the description in the humans of Catalog of teratogenic agents (2004) equivalent to Priority 1"the conclusion that inorganic arsenic is not teratogen in humans is supported."
8	Specific target organs/systemic toxicity following single exposure	Category 1 (digestive system, cardiovascular system, nervous system, blood system, kidneys); Category 3 (respiratory tract irritation)	Health hazard	Danger; Warning	Cause damage to organs (digestive system, cardiovascular system, nervous system, blood system, kidneys); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	The substance was classified as Category 1 (gastrointestinal system, cardio-vascular system, nervous system, blood system and kidneys) and Category 3 (airway irritant). Based on the report 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)), and based on a similar report in PIM (Poisons Information Monographs) G042 (WHO/IPCS, 1996), and as well as the reports of "airway irritant properties" in PIM (Poisons Information Monographs) G042 (WHO/IPCS, 1996) and HSG (Health and Safety Guides) 70 (WHO/IPCS, 1992).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (digestive system, nervous system, blood system, cardiovascular system, kidneys, liver, skin)	Health hazard	Danger	Causes damage to organs (digestive system, nervous system, blood system, cardiovascular system, kidneys, liver, skin) through prolonged or repeated exposure	Based on the description in the humans of arsenic and inorganic arsenics compounds, "gastrointestinal disturbances, neuropathy, effect on blood systems, and disorders on cardiovascular systems, kidney, and liver were observed the long term administration of inorganic arsenic. Target organ are gastrointestinal,heart,brains and kidney. The skin, marrow and peripheral nervous systems are also affected " (EHC 224 (2001), and PIM(Poisons Information Monographs) G042 (WHO/IPCS, 1996)), it was classified into Category 1 (a digestive tract, a nervous systems, blood systems, the kidney, liver, respiratory system, skin)
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 EC50=78.7microg/L of algae (Scenedesmus) (AQUIRE, 2003).
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.