GHS Classification

ID639 Monosodium sulfite

CAS 7631-90-5 Date Classified: Aug. 18, 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	–	–	–	Aqueous solution
3	Flammable aerosols	Not applicable	–	–	–	Not aerosol products
4	Oxidizing gases	Not applicable	–	–	–	Aqueous solution
5	Gases under pressure	Not applicable	–	–	–	Aqueous solution
6	Flammable liquids	Not classified	–	–	–	Aqueous solution. Non-combustible
7	Flammable solids	Not applicable	–	–	–	Aqueous solution
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 classified	–	–	–	Non-combustible solution
10	Pyrophoric solids	Not applicable	–	–	–	Aqueous solution
11	Self-heating substances and mixtures	Classification not possible	–	–	–	Test methods applicable to liquid substances are not available
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	–	–	–	The aqueous solution is stable.
13	Oxidizing liquids	Not classified	–	–	–	Reducing substance
14	Oxidizing solids	Not applicable	–	–	–	Aqueous solution
15	Organic peroxides	Not applicable	–	–	–	Inorganic substance
16	Corrosive to metals	Classification not possible	–	–	–	No data available

Health Hazards

	Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	Category 4 based on SPECIES: Rat; ENDPOINT: LD50; VALUE (Average): 1310mg/kg
1	Acute toxicity (dermal)	Classification not possible	–	–	–	Classification not possible due to lack of data
1	Acute toxicity (inhalation: gas)	Not applicable	–	–	–	Aqueous solution
1	Acute toxicity (inhalation:	Not applicable	–	–	–	Aqueous solutions. Volatilizing is mainly vapor.
1	Acute toxicity (inhalation: dust, mist)	Classification not possible	–	–	–	Classification not possible due to lack of data
2	Skin corrosion / irritation	Classification not possible	–	–	–	It has not stimulation in animal experiments. But there is information that it causes irritation on humans with concentrated solution, and it is designated as class 8 also in UN hazardous material transportation.
3	Serious eye damage / eye irritation	Classification not possible	–	–	–	Although there is case of humans (ACGIH (2002)), it is supposed that the animal experiment result by solution is no stimulating.
4	Respiratory/skin sensitization	Respiratory sensitization: Category1; Skin sensitization: Category1	(Respiratory sensitization)Health hazard; (Skin sensitization)Exclamation mark	(Respiratory sensitization)Danger; (Skin sensitization)Warning	(Respiratory sensitization)May cause allegy or asthma symptoms pr breathing difficulties if inhaled; (Skin sensitization)May cause allergic skin reaction	As human epidemiology information, a small number of allergy case caused by inhalation, skin contact and intake has been reported. It is said that it happens to the humans of sulfite oxidase deficiency. Although the occurrence rate was not high, it was referred to as Category 1 by expert judgment.
5	Germ cell mutagenicity	Not classified	–	–	–	The in vivo result was, "it gave negative for the mouse and over generation mutagenicity tests of mouse." Although we found the positive result for in vitro test, we classified it as "Out Of Category" by the technical guideline. [Based on the expert's opinion, we corrected the basic sentences.]
6	Carcinogenicity	Not classified	–	–	–	Since it is class 3 by IARC and is A4 by ACGIH, it carried out "Category Outside."
7	Toxic to reproduction	Not classified	–	–	–	Since the adverse effects was not reported in multi-generation test, it carried out "Category Outside."

8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	–	–	May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	Since there was respiratory stimulas information by the human aerosol exposure, it was set as category 3 (respiratory tract irritation).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (respiratory organs)	Health hazard	Danger	Causes damage to organs (respiratory organs) through prolonged or repeated exposure	It was classified to as "Category 1" since there is a report of an asthmatic among laundry workers and a food ingesting person (ACGIH (2001)). (Modified by expert judgment)
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	–	–	–	It carried out the outside of Category from 48-hour LC50=119000microg/L of Crustacea (Daphnia magna), and others (AQUIRE, 2003).
11	Hazardous to the aquatic environment (chronic)	Not classified	–	–	–	Since not water-insoluble (aqueous solubility =540 g/L (IUCLID, 2000)) and acute toxicity is low.