

GHS Classification

ID1109

Sodium chlorite

CAS 7758-19-2

Date Classified: Mar. 23, 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 classified	-	-	-	Not classified based on UNRTDG No. 1496, Class: 5.1, PGIII, though containing O-Halogen bonds as chemical groups associated with explosive properties present.
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) (2000))
8 Self-reactive substances and mixtures	Not applicable	-	-	-	Classified in oxidizing solids
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Not classified	-	-	-	Non-combustible (ICSC (J), 2000)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (2000))
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	Category 2	Flame over circle	Danger	May intensify fire; oxidizer	UNRTDG No. 1496, Class: 5.1; PG II.
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 3	Skull and crossbones	Danger	Toxic if swallowed	We had two LD50 values in rats, 350mg/kg and 165mg/kg (RTECS(2003)), so we adopted 165mg/kg which is the higher toxicity value, and classified the substance as Category 3.
1 Acute toxicity (dermal)	Category 2	Skull and crossbones	Danger	Fatal in contact with skin	The purity reduced values of LD50 values are rabbit 107.2mg/kg (=134*0.8) and rat 157.5mg/kg (=315*0.5) of IUCLID (2000). High purity with high toxicity of 107.2mg/kg was adopted, and it was set as Category 2.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Solid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data. (It is a solid. But there is no vapor pressure information, and it is unknown whether exposure to vapor is possible.)
1 Acute toxicity (inhalation: dust, mist)	Category 2	Skull and crossbones	Danger	Fatal if inhaled	Since there are two rat LC50 values: 0.23mg/L (the original is 230mg/m3) (RTECS (2003)) and purity equivalent 0.235mg/L (=0.29*0.809) (IUCLID (2000)), 0.23mg/L of higher toxicity was adopted and set to category 2.
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	The data (which is weak stimulative) of ECETOC TR66 (1995) in the rabbit corresponds to category 3. But it was set as category 2 since comparatively stronger stimulativeness could be considered from "a stimulus and chemical burn" (HSFS (2000)) and "a strong stimulative" (HSDB (2002)) in the human impact.
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	There is the descriptions in human effects (having irritation) (ICSC(J)(2000), HSFS(2000), HSDB(2002)), and two data in rabbit (having irritation) (IUCLID(2000)), it is clear its irritation. Since the examination data used as the index of subdivision was not found in IUCLID, it was classified into Category 2A-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: Classification not possible	-	-	-	No data available

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)	It was set as Category 2 from the positive example (oral administration negative) by the medication in the abdominal cavity in the in vivo small core examination of a mouse (IARC52 (1991), IRIS (2000)).
6	Carcinogenicity	Not classified	-	-	-	Based on the classification (Group 3) in IARC52 (1991) and (D) in IRIS (2000), it was out of the Category.
7	Toxic to reproduction	Not classified	-	-	-	From the description in rat and mouse "the slightly impact on reproductive was observed"(IARC52 (1991)), it is thought that reproductive toxicity is slight, and in the report of the rabbit of ATSDR (2004), some findings are observed but it does not think that it relate to administration directly, in addition, there was description that "there was no evidence of reproductive toxicity" in rat (JAT (2000) (RTECS (2003) original literature of prescription data), it carried out the outside of Category.
8	Specific target organs/systemic toxicity following single exposure	Category 2 (respiratory, kidneys)	Health hazard	Warning	May cause damage to organs (respiratory, kidneys)	The substance was classified as Category 2 (respiratory system, kidneys) because of the reports of the effects (cyanosis resulting from the effects on the respiratory system, renal failure) on humans in RTECS (2003), in Priority 2, and of pulmonary edema, dyspnea and airway irritant properties in HSFS (2000), and of airway irritant properties in ICSC (J) (2000).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (heart, blood)	Health hazard	Warning	May cause damage to organs (heart, blood) through prolonged or repeated exposure	It was classified into Category 2 (heart, blood) based on the description of ATSDR (2004)(Priority 1) (influence on the significant blood in administration) and the description of RTECS (2003)(Priority 2) (cardiomyopathy) in rat, and the dose of each toxic view.
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 48-hour EC50=0.0146ppm of EC of Crustacea (Daphnia magna) (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 behavior in water and bioaccumulative potential are unknown.