GHS Classification

ID1393 Ammonium perchlorate

CAS 7790-98-9 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	Division 1.1	Exploding bomb	Danger	Explosive; mass explosion hazard	UNRTDG Class: 1.1D
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	–	–	–	UNRTDG Class: 1.1D; 5.1
8	Self-reactive substances and mixtures	Not applicable	–	–	–	Classified in explosives or oxidizing solids
9	Pyrophoric liquids	Not applicable	–	–	–	Solid (GHS definition)
10	Pyrophoric solids	Not classified	–	–	–	UNRTDG Class: 1.1D or Class: 5.1
11	Self-heating substances and mixtures	Not classified	–	–	–	UNRTDG Class: 1.1D or Class: 5.1
12	Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	–	–	–	The chemical structure of the substance does not contain metals or metaloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
13	Oxidizing liquids	Not applicable	–	–	–	Solid (GHS definition)
14	Oxidizing solids	Category 2 (except explosives)	Flame over circle	Danger	May intensify fire; oxidizer	UNRTDG Class: 5.1; PG II
15	Organic peroxides	Not applicable	–	–	–	Inorganic substance
16	Corrosive to metals	Not classified	–	–	–	UNRTDG Class: 1.1D or Class: 5.1

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: 4200 mg/kg REFERENCE SOURCE: RTECS (Access on Aug 2005), IUCLID (2000)
1	Acute toxicity (dermal)	Not classified	–	–	–	It was set as the outside of Category based on that no death was observed by administration of 3500mg/kg to rats (IUCLID, 2000).
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	–	–	–	There is only a data with rat lethal concentration: >0.3mg/L (RTECS, 2005), and it cannot be classified since data is insufficient.
2	Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin	It was set as Category 2 from description that the skin is stimulated (HSDB (2005), HSFS (2002)).
3	Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	It was set as Category 2A-2B from description that the mucosa is stimulated (HSDB (2005)), and description which suggests a possibility of stimulating the eye (HSFS (2002)). Since the grade and recovery nature of the stimulus were unknown, detailed categorization was not made.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not	–	–	–	No data available
5	Germ cell mutagenicity	Not classified	–	–	–	There was a negative result by the micronucleus test which uses the erythrocytes of the rat and a mouse, which is an in vivo mutagenicity test using a somatic (IRIS, 2005). So it is classified as the out of the Category.
6	Carcinogenicity	Not classified	–	–	–	Since it was classified into NL according to EPA, it carried out the outside of Category.
7	Toxic to reproduction	Classification not possible	–	–	–	Classification not possible due to lack of data

8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	From description in HSDB (2005) that the mucosa is stimulated, and description in HSFS (2002) that nose and throat may be stimulated by inhalation and coughing and wheezing may be started, it was judged that it has respiratory irritant and was considered as Category 3.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	–	–	–	It cannot be classified because of insufficient data. Since there was description that although the effect was observed in the thyroid in the rat oral study, in evidence of human occupational exposure, change of thyroid hormones or THS was not observed, and that human is not sensitive than rat in thyroid functions disturbances (IRIS, 2005), it was not considered that the serious toxic effect for the human
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	–	–	–	Insufficient data available.
11	Hazardous to the aquatic environment (chronic)	Classification not possible	–	–	–	Classification not possible due to lack of data