

GHS Classification

ID949

Disodium peroxydisulfate

CAS 7775-27-1

Date Classified: Jul. 24, 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 classified	-	-	-	UNRTDG Class: 5.1
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) (2002))
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), 2002)
11 Self-heating substances and mixtures	Not classified	-	-	-	Not combustible (ICSC(J) (2002))
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	UNRTDG Class: 5.1
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Category 3	Flame over circle	Warning	May intensify fire; oxidizer	UNRTDG Class: 5.1; PG III
15 Organic peroxides	Not applicable	-	-	-	Inorganic substance
16 Corrosive to metals	Classification not possible	-	-	-	There is no data including the melting point data used as the judgment material of examination propriety.

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: :920mg/kg and 895mg/kg; REFERENCE SOURCE: NICNAS (2001)
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on rabbit LD50 value: >10000mg/kg (NICNAS, 2001), it was set as the outside of Category.
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)	Not classified	-	-	-	Based on rat LC50 (4 hours) value : >5.1mg/L and >21.6mg/L (NICNAS, 2001), LC50 (1 hour) value: >191.7mg/L (4-hour equivalent >47.93mg/L) (NICNAS, 2001), it was set as the outside of Category.
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	From description that the skin was stimulated (ICSC (J), (2002), and HSFS (1999)), and description that mild irritation was admitted in the test applied to the skin of the rabbit (NICNAS (2001)), it was judged that irritation was slight and was set as Category 3.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	We thought that it was incompatible for the acceptance criteria of irritation based on the description that only mild conjunctivitis was acknowledged in the test applied to the eyes of the rabbits (NICNAS (2001)). However, we found the descriptions that it stimulated the eyes (ICSC (J), (2002) and HSFS (1999)). Therefore we judged that it had mild ocular irritant property and classified it as Category 2B.
4 Respiratory/skin sensitization	Respiratory sensitization: Category 1; Skin sensitization: Category 1	(Respiratory sensitization)Health hazard; (Skin sensitization)Exclamation mark	(Respiratory sensitization)Danger; (Skin sensitization)Warning	(Respiratory sensitization)May cause allergy or asthma symptoms or breathing difficulties if inhaled; (Skin sensitization)May cause allergic skin reaction	Respiratory organ: There was a case report in NICNAS (2001) that asthma symptoms was induced by inhalation exposure in human, and in NICNAS (2001) it was concluded to be positive for respiratory sensitizing properties, therefore we classified it as Category 1. Skin: There were reports of two or more cases which gave the positive reaction by Patch test in NICNAS (2001), and it was concluded that the skin sensitizing was positive in NICNAS (2001), furthermore, we found the description that 30% or more indicated the positive in Optimization Test using the guinea pigs in NICNAS (2001), therefore we classified it to be Category 1.
5 Germ cell mutagenicity	Not classified	-	-	-	Although the performing sector was unknown, there was a negative result (NICNAS, 2001) in the micronucleus test which used the mouse, which is an in vivo mutagenicity test. So it carried out the outside of Category.
6 Carcinogenicity	Classification not possible	-	-	-	No data available

7	Toxic to reproduction	Classification not possible	-	-	-	No data available
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)	It was judged as Category 3 (respiratory irritation) because of a description in NICNAS (2001) referring to confirmation of changes in respiration indicating respiratory irritant through a inhalation exposure test using mice.
9	Specific target organs/systemic toxicity following repeated exposure	Not classified	-	-	-	From description that toxicity was not observed with the dose which exceeds the guidance value range for Category 2 in 90 day feeding oral administration test on rats (NICNAS (2001) and ACGIH (7th, 2001)), it was classified as out of Category.
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 96-hour LC50>100mg/L of fishes (<i>Oryzias latipes</i>) (MOE eco-toxicity tests of chemicals, 1999).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (aqueous solubility =55.6g/100mL(ICSC, 1993)) and acute toxicity is low.