

GHS Classification

ID948

CAS 7727-21-1

Physical Hazards

Dipotassium peroxodisulphate

Date Classified: Jul. 24, 2006 (Environmental Hazards: Mar. 31, 2006)

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: :802mg/kg and 1130mg/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	-	-	-	Not classified because of "SPECIES: Rat; ENDPOINT: LC50(1hr.); VALUE: >42.9mg/L(4hr.); VALUE:>10.7mg/L" (NICNAS, 2001)
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	From description that irritant dermatitis was acknowledged in employment evidence of exposure (ACGIH (7th, 2001) and NICNAS (2001)), it was judged that it was skin irritation and was set as Category 2.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	There is the descriptions that it stimulated the eyes (ICSC (J) (2002), HSFS (2002), and SITTIG (4th, 2002)), and on the description that the very slight stimulation (marginal irritation) was acknowledged in the test applied to the eyes of the rabbits (NICNAS (2001)). So we judged that the ocular irritant property was slight 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 that asthma symptoms was induced by inhalation exposure in human in NICNAS (2001), and in NICNAS (2001) it was concluded to be positive for the respirators sensitizing property, therefore we classified it to be Category 1. Skin: Since there were reports of two or more cases which gave the positive reaction in NICNAS (2001) by Patch test, and it was concluded as positive for skin sensitizing property in NICNAS (2001), we classified it to be Category 1.
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
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)	Although there was no concrete case report, it was judged as Category 3 (respiratory irritation) because of descriptions in ICSC (J) (2002) and SITTING (4th, 2002) referring to that respiratory tracts were stimulated.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Although there is description that toxicity was not observed with the dosage in the guidance value range for Category 2 in the 28 day feeding oral administration test on rats (NICNAS (2001)), there is no other data, and it cannot be classified because of insufficient data.
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 3	-	-	Harmful to aquatic life	It was classified into Category 3 from 48-hour LC50=92000microg/L of Crustacea (Daphnia magna) (AQUIRE, 2003).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Toxicity factor is considered to be strong acid as aqueous solution, but toxic effect is eased by the buffer action in the environmental water.