

GHS Classification

ID706

Creosote

CAS 8001-58-9

Date Classified: Feb. 20, 2007 (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	-	-	-	Not classified in UNRTDG Class: 1
2 Flammable gases	Not applicable	-	-	-	Liquid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Liquid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Liquid (GHS definition)
6 Flammable liquids	Category 4	-	Warning	Combustible liquid	Category 4 because of its flash point: 60 to 93degC
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Not classified	-	-	-	Not classified in UNRTDG Class: 4.1
9 Pyrophoric liquids	Not classified	-	-	-	There is data that the ignition points is 330 – 500 degC, and it is thought that it does not ignite in room temperatures.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
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	-	-	-	There is the information (Merck (13th.2001)) that is substantially insoluble in the water, and it is thought that there is no intense reaction with water.
13 Oxidizing liquids	Not classified	-	-	-	UNRTDG Class: Not 5.1
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not classified	-	-	-	UNRTDG Class: Not 5.2
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	Since the mean of five rat oral LD50 data (CICADS 62 (2004)) were 1523mg/kg, it was set as Category 4.
1 Acute toxicity (dermal)	Not classified	-	-	-	It was set as outside of Category since there were the data (ATSDR (2002)) that the half was lethal at 15800mg/kg in rats.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	There were differences in the result according to the creosote material coal place of produc. But there was a report of moderate stimulation about the American product (ATSDR (2002)), it was classified as Category 2.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	There is one report that stimulative is in rabbit eye. But it had recovered within seven days (CICADS 62 (2004)). So it was set as "Category 2B."
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Category 1	(Respiratory sensitization)-; (Skin sensitization)Exclamation mark	(Respiratory sensitization)-; (Skin sensitization)Warning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	There is no data on respiratory sensitization. There is allergic reactions reports of humans about skin sensitization. The hypersensitivity against ultraviolet lights is also mentioned (CICADS 62 (2004)). It was referred to as Category 1, based on these information.
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)	The result of the in vivo test of mouse somatic cells (a bone marrow micronucleus, splanchnic organizations DNA adduct) was positive (CICADS 62 (2004)), however, there was no In vivo test result about the reproductive cell. So we classified it as Category 2.

6	Carcinogenicity	Category 1B	Health hazard	Danger	May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	It was set as "Category 1B" from the judgment result of IARC: 2A, Occupational Health Society: 2A, EPA: B1, and EU: Cat.2.
7	Toxic to reproduction	Category 1A	Health hazard	Danger	May damage fertility or the unborn child	Since increase of brain tumor and neuroplasma was suggested to the posterity of the male laborers who received creosote exposures (CICADS 62 (2004)), it is classified into "Category 1A."
8	Specific target organs/systemic toxicity following single exposure	Category 3 (narcotic effects, respiratory tract irritation)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (narcotic effects, respiratory tract irritation)	Since the anesthetic actions was seen by test in animal rats (CICADS 62 (2001)) and there was information on the human respiratory irritation (HSDB (2003)), it is classified into Category 3.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (lung, liver, kidneys, blood)	Health hazard	Warning	May cause damage to organs (lung, liver, kidneys, blood) through prolonged or repeated	There is no crucial impact at oral 50mg/kg/day (15w) in rats (within the range of the guidance value Category 2) (CICADS 62 (2004)). Since the histiocytoses of lungs, increase of weight of liver and the kidney (male) and blood (reduction of red corpuscles and hemoglobin, increase in a reticulocyte) were seen in the examination of mist inhalation (ATSDR (2002)) in guidance value within the limits of 2, it was classified to as "Category 2 (lungs, liver, kidney, blood)."
10	Aspiration hazard	Classification not possible	-	-	-	We could not find the competent evidence for human. As dynamic viscosity applies to Category 1, 2, however, the principal component is polyaromatic compound, and it is not a substance which has statements of chemical pneumonia in ICSC. We cannot classify it for the dearth of information.

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 96-hour LC50=0.018mg/L of Crustacea (Mysid shrimp) (CICAD62, 2004).
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 is Category 1, and rapid degradability and bioaccumulation potential are unknown.