

GHS Classification

ID863

cyhexatin

CAS 13121-70-5

Date Classified: Sep. 1, 2005 (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 applicable	-	-	-	There are no chemical groups associated with explosive properties present in the molecules.
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	Classification not possible	-	-	-	No data available
8 Self-reactive substances and mixtures	Not applicable	-	-	-	There are no chemical groups associated with explosive or self-reactive properties present in the molecule.
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Not cause a serious reaction with water. (HSDB, 2005)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
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 4	Exclamation mark	Warning	Harmful if swallowed	It was classified to category 4 based on the data of Rat LD50 value: 540mg/kg (ACGIH 7th, 2001 and EHC 15, 1980).
1 Acute toxicity (dermal)	Category 2	Skull and crossbones	Danger	Fatal in contact with skin	Rat LD50 values = 446mg/kg, and rabbit LD50 value = 2422mg/kg (RTECS2005 and HSDB2005). Based on the lower rat LD50 value, 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 available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	Classification not possible due to lack of data
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	There is description that the skin was not stimulated by 0.01mg/kg exposure to humans (EHC 15 (1980)). But from description that the skin irritation responses were acknowledged by single sprays to the sheep (ACGIH (7th, 2001)), and description that the skin reactions were acknowledged by repeated skin exposure to the rabbit (EHC 15 (1980)). So it was judged that there was skin irritation and it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	There was no data of the test which applied directly to the eye of the animal. But based on the description that eye irritations were acknowledged by single spray to the goat (ACGIH (7th, 2001), EHC 15 (1980)), it was set as Category 2A-2B.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not possible	-	-	-	Respiratory organ: No data. Skin: We classified it as Out Of Category based on the description that no reaction was acknowledged in the skin sensitivity test for the human in EHC 15 (1980).
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
6 Carcinogenicity	Not classified	-	-	-	Not classified because of "A4" (ACGIH, 7th, 2001)
7 Toxic to reproduction	Not classified	-	-	-	It was considered as out of Category based on the description that effect was not observed in the reproductive function, fertility or development of children in the rat three-generation reproductive test, and in the 8-16 days pregnant rabbit administration test (ACGIH (7th, 2001) and EHC 15 (1980)).

8	Specific target organs/systemic toxicity following single exposure	Category 1 (central nervous system, gastrointestinal tract); Category 3 (respiratory tract irritation)	Health hazard; Exclamation mark	Danger; Warning	Cause damage to organs (central nervous system, gastrointestinal tract); May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract)	From description in EHC 15 (1980) and ACGIH (7th, 2001) that central nervous systems depressions and watery diarrheas were seen with the given dose of the guidance value range of Category 1 in the infusion test into the sheep rumen, it was set as Category 1 (a central nervous systems, a gastrointestinal). Moreover, it was set as Category 3 (respiratory irritant) from description in HSFS (2002) and SITTIG (4th, 2002) that the nose and throat are stimulated.
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (gastrointestinal tract, kidneys, liver)	Health hazard	Danger	Causes damage to organs (gastrointestinal tract, kidneys, liver) through prolonged or repeated exposure	Based on the description that the inflammation of digestive tracts, nephropathy and liver cholangitis in the 19-days oral study using the rat, and nephropathy and cholangitis in the 90-days feeding oral administration tests using a rat were observed with the dosage in the Category 1 guidance value range respectively (EHC 15 (1980)), it was classified into Category 1 all, since digestive tracts, kidney and liver are considered as the target organs.
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 96-hour LC50=6.7microg/L of fishes (Bluegill) (HSDB, 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, supposed not rapidly degrading (BIOWIN), and bioaccumulative (log Kow=6.63 (PHYSPROP Database, 2005)).