

GHS Classification

ID763

Cyclohexanol

CAS 108-93-0

Date Classified: Feb. 20, 2007 (Environmental Hazards: Feb. 10, 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 (room temperature)
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	Not classified	-	-	-	Flash point: 300degC (Chapman, 2005; etc.)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to solid (melting point <= 140degC) substances are not available.
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 metalloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At).
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Not applicable	-	-	-	Organic compounds containing oxygen (but not chlorine and fluorine) and the oxygen is chemically bonded only to carbon and hydrogen (but not to other elements).
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -O-O- structure
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 5	-	Warning	May be harmful if swallowed	SPECIES: Rat ENDPOINT: LD50 VALUE: 2.06 g/kg REFERENCE SOURCE: ACGIH (2001)
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on rabbit LDLo value (IUCRID (2000); 12400 - 22700 mg/kg), LD50 value is guessed as 5000mg/kg or more.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Solid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	Rat LC50 value >878ppm (IUCRID (2000)) was presupposed to be vapor test from saturation steam pressure (1049 - 1293ppm). But it cannot be classified since LC50 value was unspecified.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	It was classified as Category 3 based on the statement of "only slightly irritant to the rabbit skin" (ACGIH (2001) and Patty (5th, 2001)).
3 Serious eye damage / eye irritation	Category 1	Corrosion	Danger	Causes serious eye damage	Since four in the four animals in the animal tests, the scores of Corneal opacity after 24, 48 or 72 hours are 3 respectively, and in which the one animal has not recovered from the disorder after 21 days (ECETOC TR48 (2), (1998)). So it was set as Category 1.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: No data. Skin sensitization :Although a result of human patch test of skin sensitization is shown in Patty (5th, 2001), since its details are unknown, it cannot be classified.
5 Germ cell mutagenicity	Not classified	-	-	-	Based on the negative result in a somatic cell in vivo mutagenicity test (micronucleus examination), we classified it as Out Of Category according to the technical guideline.
6 Carcinogenicity	Classification not possible	-	-	-	No data available

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Since although the bad influence (the increase in mortality rate and growth inhibition of child) to future-generations was observed in the mouse studies, effect on parent animals were unknown (ACGIH (2001)), it was classified into Category 2.
8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation and narcotic)	Exclamation mark	Warning	May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation and	Since respiratory irritation (Patty (5th, 2001)) and anaesthetic (ACGIH, 2001) were seen, respectively, it is classified into Category 3 (respiratory irritation, anaesthetic).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (autonomic nervous system); Category 2 (liver, kidneys)	Health hazard	Danger	Causes damage to organs (autonomic nervous system) through prolonged or repeated exposure; May cause damage to organs (liver, kidneys) through prolonged or	It was classified into Category 1 (autonomic nervous systems) according to that (ACGIH, 2001) autonomic nervous disorders was seen in humans. Moreover, since slight degeneration in liver and kidney were observed in the dosage of a guidance value of Category 2, it was classified into Category 2 (liver, kidney).
10	Aspiration hazard	Not classified	-	-	-	Not classified because of the dynamic viscosity: 24.6 mm ² /s at 40°C.

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=704mg/L of fishes (Fathead minnows) (ECETOC TR91, 2003).
11 Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since not water-insoluble (aqueous solubility =42000 mg/L (PHYSROP Database, 2005)) and acute toxicity is low.