

GHS Classification

ID115

o-Chlorotoluene

CAS 95-49-8

Date Classified: May 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 applicable	-	-	-	Containing no chemical groups with explosive properties
2 Flammable gases	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
5 Gases under pressure	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
6 Flammable liquids	Category 3	Flame	Warning	Flammable liquid and vapour	The flash point is 43degC (c.c.) (ICSC, 2003) which is classified into Category 3. Classified into Class 3 and Packing Group III (UN#2238 (chlorotoluene)) (UN Recommendations on the Transport of Dangerous Goods)
7 Flammable solids	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
8 Self-reactive substances and mixtures	Not applicable	-	-	-	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not classified	-	-	-	Classified into Class 3 (UN Recommendations on the Transport of Dangerous Goods, UN#2238 (chlorotoluene))
10 Pyrophoric solids	Not applicable	-	-	-	Classified as "liquid" according to 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 applicable	-	-	-	Containing no metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At)
13 Oxidizing liquids	Not applicable	-	-	-	Organic compounds containing chlorine (but not oxygen and fluorine), with the chlorine bound to carbon and hydrogen (but not to other elements)
14 Oxidizing solids	Not applicable	-	-	-	Classified as "liquid" according to GHS definition
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no "-O-O-" structure
16 Corrosive to metals	Not classified	-	-	-	Classified into Class 3 (UN Recommendations on the Transport of Dangerous Goods, UN#2238 (chlorotoluene))

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	Based on the LD50 value calculated from the testing data of rat LD50 (oral route) of 3,227mg/kg (SIDS (2004)), 3,860mg/kg (SIDS (2004)) and 3,900mg/kg (MOE Risk Assessment vol.3 (2004)).
1 Acute toxicity (dermal)	Classification not possible	-	-	-	Insufficient data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Due to the fact that the substance is "liquid" according to the GHS definition and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Not classified	-	-	-	Because the rat LC50 value of 7,119ppm (SIDS (2004)) exceeded the saturated vapour concentration (4,510ppm) under a saturated vapour pressure of 456Pa (25degC), the substance was considered as "mist exposure."
2 Skin corrosion / irritation	Category 3	-	Warning	Causes mild skin irritation	Based on the description in the report on rabbit skin irritation tests performed in accordance with OECD Test Guideline 404 (SIDS (2004)): Mild irritation and erythema are observed.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	Based on the description in the report on rabbit eye irritation tests performed in accordance with OECD Test Guideline 405 (SIDS (2004)): Conjunctival hyperemia and chemosis are observed, both of which disappear within 7 days of exposure.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible Skin sensitization: Not classified	(Respiratory sensitization) - (Skin sensitization) -	(Respiratory sensitization) - (Skin sensitization)	(Respiratory sensitization) - (Skin sensitization) -	Respiratory sensitization: No data available Skin sensitization: based on the description in the report on guinea pig skin sensitization tests (SIDS (2004)) - "2-Chlorotoluene, tested in accordance with OECD Guideline 406, is not sensitizing to the skin of guinea pigs."
5 Germ cell mutagenicity	Not classified	-	-	-	Based on the absence of data on multi-generation mutagenicity tests and germ cell mutagenicity tests in vivo and negative data on somatic cell mutagenicity tests in vivo (chromosome aberration tests), described in SIDS (2004).
6 Carcinogenicity	Classification not possible	-	-	-	Due to the absence of existing classification and enough information for use in classification.
7 Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the description in the report on rat teratogenicity tests (MOE Risk Assessment vol. 4 (2005), MOE Risk Assessment vol. 3 (2004), SIDS (2004)): Congenital malformations (brachydactylia) are observed in the embryo at dosing levels toxic to parental animals.
8 Specific target organs/systemic toxicity following single exposure	Category 2 (central nervous system) Category 3 (narcotic effects)	Health hazard and Exclamation mark	Warning	May cause damage to organs (central nervous system) (Narcotic effects) May cause drowsiness or dizziness	Based on the evidence from animal studies including "deterioration of the general state (associated with sedation and respiratory failure), coma" (CERI Hazard Data 2001-66 (2002)), "loss of coordination, narcotic influence, stooping position" (ACGIH (7th, 2001)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 2.

9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (kidneys, central nervous system, liver)	Health hazard	Warning	May cause damage to organs through prolonged or repeated exposure (kidneys, central nervous system, liver)	Based on the evidence from animal studies including "color fading and swelling of the kidneys, depression of the central nervous system, adverse effects on the liver" (CERI Hazard Data 2001-66 (2002)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 2.
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 48 hours EC50=0.70mg/L of the crustacea (Daphnia magna) (MOE eco-toxicity tests of chemicals (2000) and others.).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Although acute toxicity is Category 1 and bio-accumulation is low (BCF=112(Existing Chemical Safety Inspections Data,)), since there was no rapidly degrading (the decomposition by BOD: 0%(Existing Chemical Safety Inspections Data)), it was classified into Category 1.