

## GHS Classification

**ID267**

**CAS 95-51-2**

### Physical Hazards

**o-Chloroaniline**

Date Classified: May 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 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	Not classified	—	—	—	The flash point is 108degC (open cup flash test) (ICSC, 2001)
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	—	—	—	Not pyrophoric when in contact with air at ordinary temperatures: the auto-ignition temperature is 500degC (ICSC, 2000)
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 Division 6.1 (UN#2019, Chloroaniline (liquid)) (UN Recommendations on the Transport of Dangerous Goods)

### 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	Based on the rat LD50 (oral route) value of 1,016mg/kg (CERI Hazard Data 99-25 (2000)).
1 Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	Based on the rat LD50 (dermal route) value of 1,000mg/kg (CERI Hazard Data 99-25 (2000)).
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)	Category 4	Exclamation mark	Warning	Harmful if inhaled	Based on the LC50 value (4 hours) of 2.02mg/L (equivalent to 388ppm), calculated from the testing data of rat LC50 (1 hour) of 775ppm (CERI Hazard Data 99-25 (2000)), and the LC50 (4 hours) of 4.16mg/L (MOE Risk Assessment vol.3 (2004)) exceeded the saturated vapour concentration (350ppm) under a saturated vapour pressure of 35Pa (25degC), the substance was considered as "mist exposure" and was classified based on the LC50 (4 hours) value of 2.02mg/L representing the lower of the two data.
2 Skin corrosion / irritation	Not classified	—	—	—	Based on the description in the report on rabbit skin irritation tests (4 hours) performed in accordance with OECD Test Guideline 404 (CERI-NITE Hazard Assessment No.58 (2004)): "non-irritating to the skin."
3 Serious eye damage / eye irritation	Category 2B	—	Warning	Causes eye irritation	Based on the description in the report on rabbit eye irritation tests: "Mild eye irritation was induced, with recovery observed within 3-7 days of exposure" (CERI-NITE Hazard Assessment No.58 (2004)).
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: classification not possible Skin sensitization: classification is not possible because of the insufficiency of data, although guinea pig Maximization tests show negative results for sensitization (CERI-NITE Hazard Assessment No.58 (2004)).
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects	Based on the absence of data on multi-generation mutagenicity tests, germ cell mutagenicity tests in vivo and germ cell genotoxicity tests in vivo, and positive data on somatic cell mutagenicity tests in vivo (micronucleus tests), described in CERI-NITE Hazard Assessment No.58 (2004).
6 Carcinogenicity	Classification not possible	—	—	—	Cannot be classified given the insufficiency of data for use in classification, along with the absence of existing classification.
7 Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the description in MOE Risk Assessment vol.3 (2004): The results of rat teratogenicity tests suggest a significant increase in early resorptions, a significant decrease in viable fetuses and an increase in the incidence of spontaneous malformation in pups at doses causing maternal toxicity.
8 Specific target organs/systemic toxicity following single exposure	Category 1 (blood system, central nervous system, heart, liver, kidneys)	Health hazard	Danger	Causes damage to organs (blood system, central nervous system, heart, liver, kidneys)	Based on the human evidence including "headache, coughing, vomiting, thirst, delirium, ataxia, dizziness, ear noise, disorientation, debility, lethargy, coma, cardiac block, cardiac dysrhythmia, shock, circulatory disorder, painful urination, bloody urine, hemoglobinuria, kidney damage" (CERI Hazard Data 99-25 (2000)), "methemoglobinemia, liver and kidney damage" (MOE Risk Assessment vol.3 (2004)), and the evidence from animal studies including "increased blood methemoglobin concentrations and cyanosis" (NITE Initial Risk Assessment No.58 (2005)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1.

9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (blood system) Category 2 (central nervous system)	Health hazard	Danger Warning	Causes damage to organs through prolonged or repeated exposure (blood system) May cause damage to organs through prolonged or repeated exposure (central nervous system)	Based on the evidence from animal studies including "increased blood methemoglobin concentration, cyanosis, tremor and increased Heinz bodies" (NITE Initial Risk Assessment No.58 (2005)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1 (blood system), and Category 2 (central nervous system).
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 LC50=0.13mg/L of the crustacea (Daphnia magna) (CERI/NITE Hazard Assessment Report, 2004).
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=32(Existing Chemical Safety Inspections Data. )), since there was no rapidly degrading (the decomposition by BOD: 2.7%(Existing Chemical Safety Inspections Data)), it was classified into Category 1.