

GHS Classification

ID71

N-Methylaniline

CAS 100-61-8

Date Classified: Jul. 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 4	-	Warning	Combustible liquid	The flash point is 79.5degC (c.c.) (ICSC (2002)), which is classified into Category 4.
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 Division 6.1 (UN#2294) (UN Recommendations on the Transport of Dangerous Goods)
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 no oxygen, fluorine and chlorine
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#2294) (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 716mg/kg representing the lower of the two testing data, 716mg/kg and 782mg/kg (CERI Hazard Data 2001-2 (2002)).
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No 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
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Based on human epidemiological findings of "skin irritation" (CERI Hazard Data 2001-2 (2002)). Although classified into Category 2-3 because the severity of irritation is unknown, the substance should be placed in Category 2A from the viewpoint of safety.
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	Based on human epidemiological findings (CERI Hazard Data 2001-2 (2002)): "The substance, in the form of vapour or mist, has a potential for irritation of the eyes, mucous membrane and upper respiratory tract." Also based on the evidence of "reddening and pain" (ICSC (1994)). Although classified into Category 2A-2B because the severity of irritation is unknown, the substance should be placed in Category 2A from the viewpoint of safety, if further subclassification is needed.
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 available Skin sensitization: No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	Based on the absence of data on in vivo mutagenicity/genotoxicity tests and no positive data on mutagenicity tests in vitro (two or more indices), described in NTP DB (Access on Mar., 2006), the Ministry of Health, Labour and Welfare (1996) and CERI Hazard Data 2001-2 (2002).
6 Carcinogenicity	Classification not possible	-	-	-	Based on expert judgment, given the absence of existing classification.
7 Toxic to reproduction	Classification not possible	-	-	-	No data available
8 Specific target organs/systemic toxicity following single exposure	Category 1 (blood system, kidneys) Category 2 (nervous system) Category 3 (respiratory tract irritation)	Health hazard and Exclamation mark	Danger Warning	Causes damage to organs (blood system, kidneys) May cause damage to organs (nervous system) (Respiratory tract irritation) May cause	Based on the human evidence: "the substance, in the form of vapour or mist, has a potential for irritation of the eyes, mucous membrane and upper respiratory tract" (CERI Hazard Data 2001-2 (2002)). Also based on the evidence from animal studies including "reduced locomotor activity, salivation, prone position, lateral position, generalized vellication and decreased body temperature, cyanosis and brown urine" (the Ministry of Health, Labour and Welfare (1996)), "albuminuria, cyanosis" (CERI Hazard Data 2001-2 (2002)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1 (blood system, kidneys) and Category 2 (nervous system).
9 Specific target organs/systemic toxicity following repeated exposure	Category 1 (blood system)	Health hazard	Danger	Causes damage to organs through prolonged or repeated exposure (blood system)	Based on the evidence from animal studies including "cyanosis, decreased hematocrit levels/hemoglobin levels/RBC, increased reticulocyte count," (the Ministry of Health, Labour and Welfare (1996)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1.

10	Aspiration hazard	Classification not possible	-	-	-	No data available
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Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11 Hazardous to the aquatic environment (acute)	Category 2	-	-	Toxic to aquatic life	It was classified into Category 2 from 48 hours EC50=5.5mg/L of the crustacea (Daphnia magna) (CERI Hazard Data, 2002).
11 Hazardous to the aquatic environment (chronic)	Category 2	Environment	-	Toxic to aquatic life with long lasting effects	Although acute toxicity was Category 2 and the bio-accumulation potential was low (BCF=4.1(Existing Chemical Safety Inspections Data)), since there was no rapidly degrading (the decomposition by BOD: 1.4%(Existing Chemical Safety Inspections Data)), it was classified into Category 2.