

GHS Classification

ID1015

1-Naphthylamine

CAS 134-32-7

Date Classified: Mar. 23, 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	Not classified	-	-	-	UNRTDG Class: 6.1
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: 460degC (ICSC (J), 2000)
11 Self-heating substances and mixtures	Not classified	-	-	-	UNRTDG Class: 6.1
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	-	-	-	Containing no oxygen , chlorine and fluorine.
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	Rat LD50 value = 680mg/kg (IUCILID (2000), HSDB (Access on Oct 2005)) and 779mg/kg (IUCILID(2000)). Based on the data above, it was classified as category 4.
1 Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	It was set as Category 3 based on rat LD50 value = 447mg/kg (IUCILID (2000), HSDB (Access on Oct 2005)).
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	-	-	-	There is the data stating that rat LC50 (4 hours) value was >0.056mg/L (IUCILID (2000), HSDB (Access on Oct 2005)). But it was not able to judge whether it would correspond to Category of except for category 1 from this data.
2 Skin corrosion / irritation	Not classified	-	-	-	Although a potential of stimulating the skin slightly as effect of short-term exposure to humans is suggested (HSDB (Access on Oct 2005), HSFS (2004) and ICSC (J) (2000)), there is no case reports. On the other hand, there was description that irritation was not admitted by the test which used the rabbit (IUCILID (2000), HSDB (Access on Oct 2005)). So it was set as the outside of Category.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	We classified it as Category 2B based on the descriptions that mild irritation was acknowledged in the tests using the rabbits (IUCILID (2000) and HSDB (Access on Oct 2005)).
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	Respiratory organ: No data. Skin: Although the result was indicated as sensitizing in Maximization test which used the guinea pigs in IUCILID (2000), we presupposed that we could not categorize it according to the technical guidelines since the ratio of the animals in which sensitization was observed was not indicated.
5 Germ cell mutagenicity	Not classified	-	-	-	It was negative in the micronucleus test which used the mouse, which is an in vivo mutagenicity test using a somatic (IUCILID (2000)). So it carried out the outside of Category.
6 Carcinogenicity	Not classified	-	-	-	Since it was classified into 3 in IARC (Access on Oct 2005), it was considered as the outside of Category. [special notes] Although the carcinogenic of the product is not clear, beta-naphthylamine which is constitutional isomer of the product has carcinogenic for humans (it was classified into a group 1 in IARC. 2005). Therefore, it needs to be careful that the product may have beta-naphthylamine as impurities.
7 Toxic to reproduction	Classification not possible	-	-	-	No data available

8	Specific target organs/systemic toxicity following single exposure	Category 2 (blood system)	Health hazard	Danger	May cause damage to organs (blood system)	It was judged that the target organ of this substance was blood. Because there is a report in PATTY (4th, 1994) that methemoglobin is formed at the forced oral dosage of 200mg/kg in dogs, although there are no specific case reports in humans, there are reports of possible methemoglobinemia in the reference, Priority 2 (HSDB (Access on Oct 2005), ICSC (J) (2000), HFS (2004), SITTING (4th, 2002)). So the substance was classified as Category 2.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	No data available
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)	Classification not possible	-	-	-	Insufficient data available.
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	Classification not possible due to lack of data