

GHS Classification

ID894

4-dimethylaminoazobenzene

CAS 60-11-7

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	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	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data 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	-	-	-	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 3	skin and respiratory	Danger	Toxic if swallowed	Based on the rat LD50 value = 200mg/kg (RTECS (Access on July 2005)), the value was classified to category 3.
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
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	-	-	-	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	It classified into Category 2 according to description which stimulated person's skin and caused dermatitis (IARC Vol.8 (1975), HSDB (Access on May 2005), HSFS (2003), and SITTIG (4th, 2002)).
3 Serious eye damage / eye irritation	Category 2A-2B	Exclamation mark	Warning	Causes serious eye irritation	We classified it as Category 2A-2B based on the description that it stimulates the eyes (ICSC (E) (2005)).
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	Respiratory organ: No data. Derma: There is a description that contact dermatitis was acknowledged in occupational exposure cases (IARC Vol.8 (1975)), however, details, such as number of cases, are unknown, moreover, since there is no information of reliable test data etc otherwise, we could not classify it.
5 Germ cell mutagenicity	Category 2	Health hazard	Warning	Suspected of causing genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	There are negative and positive results with in vivo mouse mutagenicity test using the somatic cells (micronucleus test) and positive with the test on rat liver/peripheral blood. Moreover, the positive results was obtained with genotoxicity tests (sister chromatid exchange test, DNA adduct formations test and DNA damage test) (all in RTECS(s) (Access on July 2005)). So it was classified as Category 2.

6	Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	Since it is classified into group 2B in IARC 8 (1975) and Japan Assoc. of Industrial Health (2005) and R in NTP RoC (11th, 2005), it was considered as Category 2.
7	Toxic to reproduction	Classification not possible	-	-	-	There is a description that effect on spermatogenesis (intraperitoneal injection, RTECS (Access on July 2005)), a musculoskeletal systems developmental defects (specific developmental abnormalities; musculoskeletal system, subcutaneous administration, RTECS (Access on July 2005)), and the teratogenicity of the scaffold including a cleft palates (a embryotic term single dose, unidentified administration route, HSDB (Access on May 2005)) were observed in the mouse. However, each case does not have detailed information, such as the influence on maternal or the discovered abnormalities. Therefore, it is unclassifiable due to insufficient date.
8	Specific target organs/systemic toxicity following single exposure	Category 3 (respiratory tract irritation)	Exclamation mark	Warning	may cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation)	From description in ICSC (E) (2005) that the airway is stimulated, it was judged that there was airway stimulativeness and was set as Category 3.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Since data was insufficient, we could not classify it. We had the description that cell-mediated immunoreactive inhibition was observed in the rat (HSDB (Access on May 2005)), however, the details of influence to the immune systems are unknown, and since other related information could not be found, we could not judge whether the immune systems is affected.
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