

## GHS Classification

**ID1016**

**CAS 119-90-4**

### Physical Hazards

**3,3'-dimethoxybenzidine**

Date Classified: Mar. 23, 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	-	-	-	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 by regulated examination methods, though "Combustible when exposed to heat or flame". (HSDB (Access on Oct 2005))
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	-	-	-	Organic compounds containing oxygen (but not chlorine and fluorine) and the oxygen is chemically bonded only to carbon and hydrogen (but not to other elements).
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	Category 4 based on SPECIES: Rat; ENDPOINT: LD50; VALUE: VALUE:1920mg/kg; (RTECS, Access on Oct 2005; HSDB, Access on Oct 2005; BUA 27, 1988) 1001mg/kg (BUA 27, 1988)
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	Classification not possible	-	-	-	Since data is insufficient, it cannot be classified. In addition, there is description that irritation was not acknowledged even if 10% solution was administered to a rabbit (BUA 27 (1988)), it is indicated that the skin may be stimulated as human impact (HSDB (Access on Oct 2005), HSFS (2001), SITTIG (4th, 2002)).
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	Since data was insufficient, we could not classify it. We found a description that 10% solution of this product did not stimulate the eyes of the rabbits (BUA 27 (1988)), however, it was described that the eye might be stimulated as effect on the human body (HSFS (2001) and SITTIG (4th, 2002)).
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	-	-	-	Respiratory organ: Since the data was insufficient, we could not classify it. In addition, BUA 27 (1988) has the report that there was no employee who indicated sensitizing property in the plant which was manufacturing this product for about 100 years. Skin: Since data was insufficient, we could not classify it. In addition, except for the report of one case in which skin sensitization was suspected in textile dyeing factories in BUA 27 (1988), there is no same report otherwise. On the other hand, at the plant which was manufacturing this product for about 100 years, there was a report that there was no employee who indicated sensitizing property.

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 is a positive result by the sister-chromatid-exchange (SCE) test using the mammalian marrow cell of the in vivo genotoxicity study using a somatic (DFGOT vol.5 (1993)), and by a in vitro mutagenicity test (NTP DB (Access on Oct 2005), DFGOT vol.5 (1993)). So it is set as Category 2. The positivity report (Mutat Res., 319, 19-30, 1993; Mutat Res., 389, 1-122, 1997) by the mouse small nucleus examination was received from the expert, and they support this Category.
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)	It was classified into the category 2 in EU ANNEX I (Access on Oct 2005). But both of them were classified into 2B in IARC (2005) and Japan Assoc. of Industrial Health (2005), and R in NTP RoC (11th, 2005). So it was considered as Category 2.
7	Toxic to reproduction	Classification not possible	-	-	-	No data available
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	The substance cannot be classified due to insufficient data. The possibility of causing irritation to nose and throat is suggested as an effect on humans in HSFS(2001), but it is not known whether this report is based on specific case reports.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (kidneys)	Health hazard	Warning	may cause damage to organs (kidneys) through prolonged or repeated	Based on the description in the 13-week oral administration test of drinking water using the rat that kidney weight gain was observed with dose of the guidance value range of Category 2 and nephropathy was observed in highest dose group (DFGOT vol.5 (1993)), we considered the kidney was target organ and we classified it into 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)	Classification not possible	-	-	-	Insufficient data available.
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	Classification not possible due to lack of data