GHS Classification

ID746 **N,N'-[1,1'-biphenyl]-4,4'-diylbisacetamide**

CAS 613-35-4 Date Classified: Jun. 20, 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	-	-	-	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 on the flammability
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 metaloids(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 and the oxygen is chemically bonded only to carbon (but not to other elements).
15	Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -0-0- structure
16	Corrosive to metals	Classification not possible	-	-	-	There is no corrosion behavior data, and the melting points is 317 degC and the method of examining for judging solid metal corrosiveness is not established.

Health Hazards

	Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Classification not possible	-	-	-	Since there is no animal testing data, it cannot be classified. In EU, it is R22 (if it is swallowed, it is hazard).
1	Acute toxicity (dermal)	Classification not possible	-	-	-	Since there is no animal data, it cannot be classified. However, in EU, it is R21 (it is toxicity when contacted with skin).
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	-	-	-	Since there is no animal data, it cannot classify. In EU, it is R20 (hazardous if it is inhaled).
2	Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3	Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available
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)	Although the binding to the rat liver DNA was low for in vivo, it gave the positive result (HSDB (2003)), and each in vitro test results suggest mutagenicity (HSDB (2003), RTECS (2000)). Therefore we classified it 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)	It was set as 2 from 2B by IARC which is an evaluation organization. Carcinogenic properties in liver, eustachian tubes and mammary gland is acknowledged by oral, subcutaneous, and intraperitoneal administration in rats (IARC 16 (1978)).
7	Toxic to reproduction	Classification not possible	–	–	–	No data available
8	Specific target organs/systemic toxicity following single exposure	Category 2 (kidneys)	Health hazard	Warning	May cause damage to organs (kidneys)	It is classified into Category 2 by that the renal effects was regarded by the diet examination of the mouse in 4g/kg (equivalent: equivalent to 600mg/kg bw) (IARC 16 (1978)).
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 exposure	It was classified into Category 2 (kidney) according to the data of producing considerably serious glomerularnephritis (severe glomerulonephritis) and dying, in feeding 429mg/kg (equivalent to 43mg/kg, 21mg/kg) to rats (IARC 16 (1978)).
10	Aspiration hazard	Classification not possible	–	–	–	No data available on chemical pneumonia

Environmental Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
11	Hazardous to the aquatic environment (acute)	Classification not possible	–	–	–	No data available
11	Hazardous to the aquatic environment (chronic)	Classification not possible	–	–	–	No data available.