GHS Classification

ID967 Isophthalonitrile

CAS 626-17-5 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
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	–	–	–	Containing no oxygen , chlorine and fluorine.
15	Organic peroxides	Not applicable	–	–	–	Containing no -O-O- structure
16	Corrosive to metals	Classification not possible	–	–	–	Liquid at a test temperature, 55degC. 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: 711mg/kg (the Health, Labor and Welfare Ministry reports, 2005) and >5000mg/kg (ACGIH 7th, 2001). Based on the values above, the lower value was adopoted, and it was classified to category 4.
1	Acute toxicity (dermal)	Classification not possible	–	–	–	There was the description that rabbit LD50 value: >2000mg/kg (RTECS, 2005). But the existence of death by 2000mg/kg administration was unknown, it cannot be classified.
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 was description that effect was not admitted by 1-hour exposure (4-hour equivalent 2.243mg/L) of 8.97mg/L to a rat (ACGIH (7th, 2001)). But there is no other data, and category was not specificked. Therefore, it cannot classify.
2	Skin corrosion / irritation	Not classified	–	–	–	From description that skin changes were not admitted in the test applied to the skin of the rabbit on ACGIH (7th, 2001), it was judged that there was no irritation and was carried out the outside of Category.
3	Serious eye damage / eye irritation	Not classified	–	–	–	Based on the description that no irritant property was acknowledged in the test applied to the eyes of the rabbits (ACGIH (7th, 2001)), we classified it as Out Of Category.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Classification not	–	–	–	No data available
5	Germ cell mutagenicity	Classification not possible	–	–	–	Since there is only negative data, it cannot be classified according to an in vitro examination (Ames test, chromosome aberration test).
6	Carcinogenicity	Classification not possible	–	–	–	No data available
7	Toxic to reproduction	Classification not possible	–	–	–	No data available
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	–	–	–	No data available.

9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver, kidneys)	Health hazard	Warning	May cause damage to organs (liver, kidneys) through prolonged or repeated exposure	Based on the descriptions that the effects on the liver was observed with the dose within the guidance value range for Category 2 and the renal effects on male rats was observed with the dose within the guidance value range for Category 1 in the 28 day oral study on rats (the Health, Labor and Welfare Ministry reports (2005)), the target organ was thought to be liver and kidney. However, the hyaline droplets of proximal renal tubule as renal effects can be alpha 2u-globulin renal syndrome specific to male rats. As it could not fully be sure to justify the classification as Category 1, it was classified as Category 2 (liver, kidney).
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