

GHS Classification

ID1214

CAS 109-78-4

Physical Hazards

Propionitrile, 3-hydroxy-

Date Classified: Dec. 18, 2006 (Environmental Hazards: Mar. 31, 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	-	-	-	Liquid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Liquid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Liquid (GHS definition)
6 Flammable liquids	Not classified	-	-	-	Not classified because of its flash point: 129degC(O.C.) (ICSC(J), 2001)
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
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 classified	-	-	-	The ignition points is 494 degC (ICSC (J), 2001), and even if it contacts the air of normal temperature, it does not ignite spontaneously.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to liquid substances are not available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	-	-	-	Metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At) is not included. In addition, there is a statement in ICSC (J) (2001), and Sax (11th, 2004) that it react to the water and flammable vapors (hydrogen cyanide etc.) is produced.
13 Oxidizing liquids	Not applicable	-	-	-	Organic compounds containing oxygen chemically bonded only to carbon and hydrogen (but not to other elements).
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Not classified	-	-	-	There is a description in NFPA (13th, 2002) that "it is conveyed with a metal container," so it was thought that there was no corrosion behavior, and it was set as the outside of Category.

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Not classified	-	-	-	We regarded the substance as outside the categories. Because the oral LD50 in rats is 10mg/kg and 3200 - 6200mg/kg (PATTY (5th, 2001)), and we judged that the value was more than 5g/kg.
1 Acute toxicity (dermal)	Not classified	-	-	-	It was set as the outside of Category from rabbit dermal LD50 = 5000mg/kg (HSDB (2003), RTECS (2000)).
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	There are reports that when rats and guinea pigs had 1h inhalation exposure to the vapor of this product, they are uninfluenced and that rats were uninfluenced with 8-hour exposure to saturated vapor (since vapor pressures is 10.7Pa, saturated vapor concentrations is 10 ⁻⁶ *10.7/101,300 = 106ppm (0.31mg/L), and it can be converted for 4 hours to 0.44 mg/L, which is presumed to have no effect)(PATTY (5th, 2001)). However, it was presupposed that data is insufficient and cannot be classified.
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Since the irritation of "moderate (moderately)" is indicated by the single dose (a method is unknown) to the skin of a rabbit (PATTY (5th, 2001)), and the human eyes were stimulated (ICSC (J), (2001)), it was set as Category 2.
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	As a result of medicating eye of rabbit with this product by standard Draize method, "moderate" irritation is indicated (RTECS(2000)), and the human eye were stimulated (ICSC(J)(2001), and HSDB(2003)). So it was set as Category 2A.
4 Respiratory/skin sensitization	Classification not possible	-	-	-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data available
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	-	-	-	Insufficient data available.
9 Specific target organs/systemic toxicity following repeated exposure	Classification not possible	-	-	-	Insufficient data available

10	Aspiration hazard	Classification not possible	-	-	-	No data available
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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.