

GHS Classification

ID238

1,2-Propanediol, dinitrate

CAS 6423-43-4

Date Classified: Sep. 1, 2005 (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	Classification not possible	-	-	-	No data available
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	Classification not possible	-	-	-	No data available
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Classification not possible	-	-	-	No data available
9 Pyrophoric liquids	Classification not possible	-	-	-	No data available
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	-	-	-	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	Classification not possible	-	-	-	No data available
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	No data 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	Calculated based on rat LD50 values: 250mg/kg (ACGIH 7th, 2001, PATTY 4th, 1994), 480mg/kg (ACGIH 7th, 2001), 860mg/kg (PATTY 4th, 1994), and 1190mg/kg (PATTY 4th, 1994). Since the calculated values was 354.8mg/kg, it was set as Category 4.
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (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	Not classified	-	-	-	From descriptions that irritation was not observed in the rabbit skin irritation test (ACGIH (7th, 2001) and PATTY (4th, 1994)), it was classified as out of Category.
3 Serious eye damage / eye irritation	Not classified	-	-	-	From description that change of the eye disappeared within 24 hours by the test applied to the eye of the rabbit (ACGIH (7th, 2001), PATTY (4th, 1994)), it was set as the outside of Category.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; 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	Category 1 (nervous system, cardiovascular system); Category 2 (blood system)	Health hazard	Danger; Warning	Cause damage to organs (nervous system, cardiovascular system); May cause damage to organs (blood system)	Due to the descriptions that the effect to nervous system in human (disruption in the organization of the visual evoked response) was observed in exposure example of human in ACGIH (7th, 2001) and PATTY (4th, 1994), that the hypotension was observed in the range of guidance value of Category 1 in the dermal dose study using the rat in PATTY (4th, 1994), and that the effects to the blood was observed in the range of guidance value of Category 2 in the inhalation exposure study using the rat in PATTY (4th, 1994). So they were classified into Category 1 (nervous system, blood vessel) and Category 2 (blood).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (nervous system); Category 2 (blood, liver)	Health hazard	Danger; Warning	Causes damage to organs (nervous system) through prolonged or repeated exposure; May cause damage to organs (blood, liver) through prolonged or repeated exposure	From description that the influence on a nerve systems (alteration in the visual-evoked response) becomes strong by repeated exposure in the human inhalation exposure test of ACGIH (7th, 2001) and PATTY (4th, 1994), it was classified in Category 1 (nervous system). Moreover, based on the description in ACGIH (7th, 2001) and PATTY (4th, 1994) that the effects on the liver and blood were seen with the given dose of the guidance value range of Category 2 by the inhalation exposure test using a dog and an ape, it was classified in Category 2 (blood,liver).
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	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.