

GHS Classification

ID1049

diphacinone

CAS 82-66-6

Date Classified: Apr. 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	Not classified	-	-	-	Non-pyrophoric when in contact with air at a room temperature and used as agricultural chemicals (raticides).
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 and the oxygen is chemically bonded only to carbon (but not to other elements).
15 Organic peroxides	Not applicable	-	-	-	Organic compounds 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 1	Skull and crossbones	Danger	Fatal if swallowed	Category 1 based on SPECIES: Rat, ENDPOINT: LD50, VALUE: 3.0 mg/kg, REFERENCE SOURCE: Priority 1, EUC 176(1995)
1 Acute toxicity (dermal)	Category 1	Skull and crossbones	Danger	Fatal in contact with skin	Rat LD50 <200mg/kg (Pesticide Manual (13th ed, 2003)), and rabbit LD50 = 3.6 mg/kg (HSDB (2003)). The lower one was adopted, and it was classified as Category 1.
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)	Category 1	Skull and crossbones	Danger	Fatal if inhaled	The saturated vapor pressure concentrations calculated from this substance's steam pressure 1.37*10 ⁻⁵ mPa (25degC) is 1.35*10 ⁻⁷ mg/L, and each concentration (2mg/L, 6ug/L) used for the inhalation study is considered to be a dust. Therefore, it was classified into category 1 based on higher toxic value LC50 <6ug/L/4 hr (HSDB (2003)) among rat LC50 values.
2 Skin corrosion / irritation	Not classified	-	-	-	Since there was description that there was no skin irritation in Priority 1 (PM (13th, 2003)), it was carried out the outside of Category.
3 Serious eye damage / eye irritation	Not classified	-	-	-	Since there is the description that there is no irritation to the eye (Priority 1(PM (13th, 2003))), it is classified out of the Category.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	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	-	-	-	Insufficient data available

8	Specific target organs/systemic toxicity following single exposure	Category 2 (blood system)	Health hazard	Warning	May cause damage to organs (blood system)	The substance was classified as Category 2 (blood (anticoagulation)) based on the reports in Priority 2 of bleeding (epistaxis, melena, punctate hemorrhages, etc.) derived from the anticoagulant effect in humans (SITTIG (4th, 2002), HSFS (1999), HSDB (2003)).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (blood)	Health hazard	Danger	Causes damage to organs (blood) through prolonged or repeated exposure	In the experiment of the rat in Priority 1, there is description that widespread copious haemorrhages in the volume equivalent to the guidance value of Category 1 is observed (EHC175 (1995)). Moreover, also in the experiment in dermal administration to the rabbit in Priority 2, since various bleed in organ was observed in the level equivalent to the guidance value of Category 1 (HSDB (2003)), it was classified into Category 1 (blood). In addition, although there is description that it may have affect to liver and kidneys of human in Priority 2 (SITTIG (4th, 2002)), since there was no other description which directs these contents, it was not added to target organ.
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)	Category 1	Environment	Warning	Very toxic to aquatic life	Since a potential that relevant toxicity was discovered in the water solubility (0.3 mg/L (PHYSPROP Database, 2005)) of this substance cannot be denied, from 96-hour LC50=2.09mg/L of fishes (American catfish) (EHC175, 1995), it was classified into Category 1.
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, since acute toxicity is Category 1, supposed not rapidly degrading (BIOWIN), and bioaccumulative (log Kow=4.1 (PHYSPROP Database, 2005)).