

GHS Classification

ID39

Diazinon

CAS 333-41-5

Date Classified: Jul. 24, 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	-	-	-	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	-	-	-	Flash point: 169degC > 93degC
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
8 Self-reactive substances and mixtures	Classification not possible	-	-	-	No data available
9 Pyrophoric liquids	Not classified	-	-	-	The firing points is 169 degC (our database), and even if it contacts the normal temperature air, it does not ignite.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
12 Substances and mixtures, which in contact with water, emit flammable gases	Classification not possible	-	-	-	No data available
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	SPECIES: Rat (female) ENDPOINT: LD50 VALUE: 485 mg/kg REFERENCE SOURCE: Agricultural Chemicals abstracts
1 Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	It was set as Category 3 based on rat (female) LD50 value: 876mg/kg (Agricultural-Chemicals abstracts).
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)	Category 4	Exclamation mark	Warning	Harmful if inhaled	It was set as Category 4 based on Rat LC50 (4 hours) value: 3.1mg/L (Agricultural-Chemicals abstracts).
2 Skin corrosion / irritation	Not classified	-	-	-	Since skin changes that matches diagnosis criteria of mild irritation were not observed in the skin irritation test on rabbits (Agricultural-Chemicals abstracts), it was classified as out of Category.
3 Serious eye damage / eye irritation	Not classified	-	-	-	Since change of the eye which is adapted for criteria for diagnosis of irritation was not admitted in the eye irritation test using a rabbit (Agricultural-Chemicals abstracts), it was set as the outside of Category.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Category 1	(Respiratory sensitization)-; (Skin sensitization)Exclamation mark	(Respiratory sensitization)-; (Skin sensitization)Warning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	Respirator: No data Skin: Classified as Category 1 because the Maximization test using guinea pigs (agrochemical abstract) showed 100% of positive rate.
5 Germ cell mutagenicity	Classification not possible	-	-	-	Since there are only negative or slightly positive in vitro test data (Agricultural-Chemicals abstracts), the substance cannot be classified
6 Carcinogenicity	Not classified	-	-	-	Since it was classified into A4 (ACGIH, 2003) according to ACGIH, it was considered as the outside of Category.
7 Toxic to reproduction	Not classified	-	-	-	In the peroral administration reproduction study using rat, and the pregnancy peroral administration study using rat and rabbit, there was no reproductive toxicity in the dose causing general toxicity of parent animals (all were from Agricultural-Chemicals abstracts). So it was considered as on the outside of Category.

8	Specific target organs/systemic toxicity following single exposure	Category 2 (nervous system)	Health hazard	Warning	May cause damage to organs (nervous system)	Tremors in oral, percutaneous and inhalational exposure tests in rats, clonic convulsions in an oral administration test and increased hyperreactivity to touch in an inhalation exposure test were observed respectively at the dose within the guidance values for Category 2 (Agricultural Chemical Abstracts). So the substance was classified as Category 2 (nervous system) because it is considered to affect the nervous system.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (kidneys, nervous system, liver, testes)	Health hazard	Warning	May cause damage to organs (kidneys, nervous system, liver, testes) through prolonged or repeated	The cell infiltration in the kidney was observed in the oral study using rat, and cholinergic neuroexcitatory symptoms, liver cirrhosis, atrophy of hepatocytes, atrophy of spermatid or the inhibition of the spermatogenesis and the chronic nephropathies were observed in the oral study using dog with the each given dose within the guidance value range of Category 2 (all were Agricultural Chemicals abstracts), so it is considered that the kidney, nervous systems, liver, and testes are target organs, and they were classified into Category 2 (kidney, nervous system, liver, testes).
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	It was classified into Category 1 from 96-hour LC50=0.0002mg/L of Crustacea (Amphipod) (EHC198, 1998).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Classified into Category 1, Classified into Category 1, since acute toxicity was Category 1 and not rapidly degrading (BOD: 0% (existing chemical safety inspections data)), though less bio-accumulative (BCF=46.9 (existing chemical safety inspections data)).