

GHS Classification

ID1244

pirimicarb

CAS 23103-98-2

Date Classified: Feb. 20, 2007 (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.
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to solid (melting point <= 140degC) 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	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 3	Skull and crossbones	Danger	Toxic if swallowed	Because the rat oral LD50s: 68, 147-210, 101-147 and 165-221mg/kg (JMPR375 (1976)) are all within the range of Category 3, the substance was classified as Category 3.
1 Acute toxicity (dermal)	Category 3	Skull and crossbones	Danger	Toxic in contact with skin	Dermal LD50 = 500mg/kg in rats and rabbits (both, RTECS (2003)), it was set as Category 3.
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 2	Skull and crossbones	Danger	Fatal if inhaled	Based on the value (0.5mg/L) converted from oral LC50 (6h) = 0.3mg/L (JMPR375 (1976), HSDB (2003)) in a rat into exposure for 4 hours, it was set as category 2. In addition, the saturated concentration of this product is about 4*10 ⁻⁵ (-5)mg/L (4*10 ⁻³ ppm), it is presumed that the experiment was conducted in the state of the particulate.
2 Skin corrosion / irritation	Not classified	-	-	-	Since irritation was not acknowledged when the this product (5%, 25%, 50% of content) was applied to skin of rabbits (JMPR375 (1976)), it carried out the outside of Category.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	Since, as for this material formulations (contents is 5%, 25%, 50%), "Mild" irritation was acknowledged for the eyes of the rabbit (JMPR375(1976)), it was set as Category 2B.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Respiratory sensitization: no data available. Skin sensitization: in the test (test unknown) using a guinea pig, since there is a description that the sensitization response was not induced (JMPR375(1976), HSDB(2003)), it was taken as the outside of Category.
5 Germ cell mutagenicity	Not classified	-	-	-	There is the negative result in the dominant fatality test using mouse (JMPR599 (1982)), and the in vivo small core test using rat bone marrow cells (JMPR375 (1976)). So it is classified as the out of the Category. In addition, by Ames test, it is considered as negative, and by in vitro chromosome aberration test, it is considered as positive (JMPR560 (1981)).
6 Carcinogenicity	Classification not possible	-	-	-	The increase of the rate of incidence of a lung tumor (JMPR375 (1976)) or lymph sarcoma (JMPR599 (1982)) were seen in mouse. But it was negative in rats, and the information which will conclude if this substance is carcinogenic was not acquired. Therefore, it was presupposed that data is insufficient and it cannot be classified.
7 Toxic to reproduction	Not classified	-	-	-	In the reproduction and development tests using rats, mice or rabbit, since the teratogenicity and impact on reproductive potential was not acknowledged (JMPR375 (1976), HSDB (2003)), it was set as 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)	It is known that this product is carbamate pesticides and inhibit cholinesterase activity. Since reduction in cholinesterase activities in humans and rats (JMPR375 (1976), HSDB (2003)) and cholinergic symptoms in human (HSDB (2003)) were observed, it was considered as Category 2 (nervous systems).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (nervous system, blood system)	Health hazard	Warning	May cause damage to organs (nervous system, blood system) through prolonged or repeated exposure	Since vomiting, salivation, and anemia (decrease of hemoglobin, blood cell volume and erythrocytes etc.) were observed in the repeated administration with the dose level being equivalent to Category 2 with a guidance value to a dog (JMPR375 (1976), JMPR449 (1978), and HSDB (2003)), it was classified into Category 2 (nervous systems, and blood systems).
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 48-hour EC50=0.016mg/L of Crustacea (Daphnia magna) (ECETOC TR91, 2003).
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 was Category 1, supposed not rapidly degrading (BIOWIN), though supposed less bioaccumulative (log Kow=1.7 (PHYSPROP Database, 2005)).