

GHS Classification

ID1137

ethiofencarb

CAS 29973-13-5

Date Classified: Mar. 15, 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	-	-	-	PM (13th, 2003) has a statement "flash point: 123degC", and it is a flammable, there is no test data, and it cannot be classified.
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	-	-	-	Flash point: 123degC (PM, 13th, 2003) and non-pyrophoric when in contact with air at a room temperature
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	-	-	-	No data 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	Based on the value (227 mg/kg) calculated by using the formula based on the oral LD50 values in rats, 308, 411, 499, 200 and 200mg/kg (JMPR404 (1977), RTECS (2004) and HSDB (2004)), the substance was classified as Category 3.
1 Acute toxicity (dermal)	Category 5	-	Warning	May be harmful in contact with skin	It was set as Category 5 based on rabbit dermal LD50 = 2500mg/kg (RTECS (2004), HSDB (2004)).
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)	Classification not possible	-	-	-	Insufficient data available
2 Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	No data available
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	Not classified	-	-	-	There is a negative result by the dominant lethal test using a mouse (JMPR404 (1977)), and other in vivo data not being found. So it carried out the outside of Category according to classification guidelines. In addition, weak positive finding is accepted in the Salmonella test (JMPR584 (1982)).
6 Carcinogenicity	Classification not possible	-	-	-	By the experiment using rat, it is suggested that this product has tumor promotions activity (HSDB (2004)), but there is no data of the carcinogenicity of this product, and data is insufficient. Therefore, it cannot be classified.
7 Toxic to reproduction	Not classified	-	-	-	In the teratogenicity study or three-generation reproduction studies using rats or rabbits, effects was not seen in reproductive potential and development, in partly, the slight effect on bone was seen (JMPR584 (1982), JMPR404 (1977)). So it carried out the outside of Category.

8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	Although inhibition of cerebellar and hematological cholinesterase inhibition of the activity are observed with administration of this product in a rat (JMPR404 (1977)), there is no data which indicates the toxic effects and it cannot be classified due to insufficient data.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver)	Health hazard	Warning	may cause damage to organs (liver) through prolonged or repeated exposure	Since as the result in the repeated administration with dose being equivalent to Category 2 with a guidance value to the rat or the dog, the influence such as the increase in liver weights, hypertrophy of liver, or swelling of hepatocyte was observed (JMPR404 (1977)), it was classified into Category 2 (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)	Category 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 48-hour LC50=0.22mg/L of Crustacea (Water fleas) (HSDB, 2004).
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=2.04 (PHYSPROP Database, 2005)).