

GHS Classification

ID637

Metribuzin

CAS 21087-64-9

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	-	-	-	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	Classification not possible	-	-	-	No data available
9 Pyrophoric liquids	Not applicable	-	-	-	Solid (GHS definition)
10 Pyrophoric solids	Not classified	-	-	-	Non-pyrophoric when in contact with air at a room temperature (Dictionary of Organic Compounds, 1985)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	The melting points is 140 degC or less (melting points: 126 degC, organic compounds dictionary (1985)), and cannot apply the examining method.
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 (but not chlorine and fluorine) and the oxygen is chemically bonded only to carbon (but not to other elements).
15 Organic peroxides	Not applicable	-	-	-	There are no chemical groups associated with peroxide present in the molecule.
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 5	-	Warning	May be harmful if swallowed	Since rat female LD50 value was 2020mg/kg (Agricultural-Chemicals abstracts), it was set as Category 5.
1 Acute toxicity (dermal)	Not classified	-	-	-	Since death was not observed at 2000mg/kg in the rat dermal toxicity studies (Agricultural-Chemicals abstracts), it was set as the outside of Category.
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	-	-	-	It is female rats LC50 >0.86mg/L (Agricultural-Chemicals abstracts), and cannot be classified.
2 Skin corrosion / irritation	Not classified	-	-	-	Irritation was not observed at all in rabbit skin irritation test (Agricultural-Chemicals abstracts). Therefore, it was classified as out of Category. In addition, it is also reported to have no irritativeness on human skin (HSDB, 2005).
3 Serious eye damage / eye irritation	Not classified	-	-	-	Based on that irritation against ocular-mucous and response to corneal were not produced in eye irritation tests with rabbits (Agricultural-Chemicals abstracts), it was set as the outside of Category.
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not classified	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	Skin: Based on the fact that sensitization was not identified in the FDA test(Agricultural chemicals abstract) using the guinea pigs, it was put outside of the Category. In addition, it has been reported that there is no skin sensitization in humans either. (HSDB (2005)). Respirator: No data
5 Germ cell mutagenicity	Not classified	-	-	-	It gave negative by the micronucleus test (in vivo) which used bone marrow cells of the mouse, and by the genotoxic tests (in vivo) which used the germ cells of the Chinese hamster (Agricultural-Chemicals Abstracts). Therefore we classified it as Out Of Category.
6 Carcinogenicity	Not classified	-	-	-	It was carried out the outside of category based on that the existing segment is D in EPA and A4 in ACGIH. In addition, carcinogenicity is not acknowledged in carcinogenicity tests of mouse (Agricultural-Chemicals abstracts).
7 Toxic to reproduction	Not classified	-	-	-	Since there was no effects on the reproductive potential in the rat two-generation reproductive toxicity test (GLP) and it was not observed of developmental toxicity in rat and rabbit teratogenicity test (GLP) (Agricultural-Chemicals abstracts), it was considered as on the outside of Category.

8	Specific target organs/systemic toxicity following single exposure	Not classified	-	-	-	Since only slight influences are reported with regard to the oral administration, transdermal intake or inhalation by rats (Agricultural chemical abstracts), it was put outside of the Category.
9	Specific target organs/systemic toxicity following repeated exposure	Not classified	-	-	-	Although change in organ weight is reported in the 90-days oral administration test using rats, other critical adverse effect is not observed in the dosage of 105mg/kg which is beyond the maximum (100mg/(kg)) of the guidance value of Category 2 (Agricultural Chemicals abstracts). Therefore, it was classified to as the outside of Category.
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 ErC50=29.4microg/L of the algae (Green algae) (Agricultural Chemical Registration Data, 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=1.7 (PHYSPROP Database, 2005)).