

GHS Classification

ID619

5-methyl-1,2,4-triazolo[3,4-b]benzo-1,3-thiazole

CAS 41814-78-2

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	Classification not possible	-	-	-	No data available
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	-	-	-	Containing no oxygen , chlorine and fluorine.
15 Organic peroxides	Not applicable	-	-	-	Containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	Liquid at a test temperature, 55degC. 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	Calculated based on rat (female) LD50 values: 223mg/kg, 289.7mg/kg, and 301.9mg/kg (Agricultural-Chemicals abstracts). The calculation level was 231.3mg/kg, it was set as Category 3.
1 Acute toxicity (dermal)	Not classified	-	-	-	Based on rat LD50 value: >5000mg/kg (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	-	-	-	An original object rat LC50 (1 hour) value is >146mg/m3 (4-hour equivalent >0.0365mg/L), 75% wettable powders rat LC50 (1 hour) value is >2.33mg/L (4-hour equivalent >0.583mg/L)(Agricultural-Chemicals abstracts). But the category could not be specified only by these data. Therefore, it cannot be classified since data is insufficient.
2 Skin corrosion / irritation	Not classified	-	-	-	Since change that matches for slight stimulation criteria was not observed with exposure for 24 hours 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 was adapted to criteria for assessments of irritation in eye irritation tests of rabbits was not admitted (Agricultural-Chemicals abstracts), it was set as the outside of Category.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Not possible	-	-	-	Respirator: No data Skin: Since the skin sensitization was negative in Buehler test using the guinea pigs (Agricultural Chemicals abstracts), it was put outside of the Category.
5 Germ cell mutagenicity	Not classified	-	-	-	Since there was a negative result in the micronucleus test which used the mouse marrow cells, which was the in vivo mutagenicity test using the somatic cells (Agrichemical Abstracts), we classified it as Out Of Category.
6 Carcinogenicity	Not classified	-	-	-	Neither of the organizations had categorized about carcinogenic. But oncogenicity was not acknowledged (Agricultural-Chemicals abstracts) in the chronic toxicity/carcinogenic test using rats and mice. So it carried out the outside of category.
7 Toxic to reproduction	Classification not possible	-	-	-	Since although there is no effect on reproductive potential in reproductive test of rat and there is no teratogenicity in teratogenicity test on rat and rabbit (Agricultural-Chemicals abstracts) and there is no the general toxicity to parent animals in the all of the tests, it is considered as cannot be classified.

8	Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	Although toxic symptoms are observed by the oral medication test using rats and mice(Agricultural chemical abstracts), since the dose volume was unknown, it was decided that it could not be classified due to the insufficiency of 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	It was classified to as Category 2 (liver) since the effects on liver such as hypertrophy of hepatic cells and lobular peripheral hepatocyte eosinophilic degeneration, etc. is acknowledged with the given dose of the guidance value range of Category 2 in the long-term oral test using rats and mice (agricultural- chemicals abstracts).
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 3	-	-	Harmful to aquatic life	It was classified into Category 3 from ErC50=16mg/L of algae (Green algae) (Agricultural Chemical Registration Data, 2003).
11 Hazardous to the aquatic environment (chronic)	Category 3	-	-	Harmful to aquatic life with long lasting effects	Classified into Category 3, since acute toxicity was Category 3 and supposed not rapidly degrading (BIOWIN), though supposed less bio-accumulative (log Kow=1.7(PHYSPROP Database, 2005)).