

GHS Classification

ID1095

2,3-dihydro-2,2-dimethyl-7-benzofuryl 2,4-dimethyl-6-oxa-5-oxo-3-thia-2,4-diazadecanoate

CAS 65907-30-4

Date Classified: Sep. 20, 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	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	Classification not possible	-	-	-	No data available
11 Self-heating substances and mixtures	Classification not possible	-	-	-	The test suitable for the solid of 140 degC or less of melting points is not established. (42.6 - 45.7 degC melting points)
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	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	No data available (Melting point: 42.6-45.7degC)

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 2	Skull and crossbones	Danger	Fatal if swallowed	Among three LD50 value of oral administration examination for male and female rats (Agricultural Chemical Registration Data), the lower value of LD50=10 mg/kg was adopted to classify as category 2.
1 Acute toxicity (dermal)	Category 5	-	Warning	May be harmful in contact with skin	It was set as Category 5 based on rat LD50 = 2020mg/kg of the dermal administration test (Agricultural Chemical Registration Data).
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	It was set as Category 2 based on LC50 = 0.24mg/L.; this is the lower value of LC50 = 0.24mg/L. and LC50 = 0.16mg/L (Agricultural Chemical Registration Data) by the inhalation exposure test using rats.
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: Category 1	(Respiratory sensitization)-; (Skin sensitization)Exclamation mark	(Respiratory sensitization)-; (Skin sensitization)Warning	(Respiratory sensitization)-; (Skin sensitization)May cause allergic skin reaction	Respiratory sensitization: no data available. Skin sensitization: it was referred to as Category 1 based on the publication (Agricultural Chemical Registration Data) that the positive result was obtained in the skin sensitivity test using a guinea pig.
5 Germ cell mutagenicity	Not classified	-	-	-	There is no data of human administration cost epidemiology, an administration cost mutagenicity test, and a productive cell in vivo mutagenicity test. And there is the statement (Agricultural Chemical Registration Data) with negativity in the somatic cell in vivo mutagenicity test (micronucleus test which used mouse bone marrow cells). So it carried out the outside of Category.
6 Carcinogenicity	Not classified	-	-	-	In the carcinogenicity tests using rat and mouse, based on the description that there is no treatment-related tumorigenesis (Agricultural Chemical Registration Data), it was out of the Category .

7	Toxic to reproduction	Not classified	-	-	-	In the two-generation reproductive examination using rats and the teratogenicity study using rats and rabbits, it was carried out the outside of Category based on the description that reproductive toxicity was not acknowledged (Agricultural Chemical Registration Data).
8	Specific target organs/systemic toxicity following single exposure	Category 1 (systemic toxicity, nervous system)	Health hazard	Danger	Cause damage to organs (systemic toxicity, nervous system)	There is a report that symptoms, such as decrease in locomotor activity, motor ataxia, tremors, bloody tears, contraction of the pupil, protrusion of the eyeballs, gasping, lacrimation, convulsions, excessive urination, dyspnea, salivation, swelling of the neck, marks of bite wounds on the tongue, nasal discharge and bleeding in the mouth, were observed at the dosages (5.9–186.0mg/kg) within the guidance values of Category 1 (Agricultural Chemical Registration Data). It is also reported that symptoms, such as locomotor activity, motor ataxia, tremors, lacrimation, convulsions, excessive urination and salivation, were observed at the dosages (8.0–253.0mg/kg) within the guidance values for Category 1 (Agricultural Chemical Registration Data). The substance was classified as Category 1 (systemic, nervous system) based on this
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (blood); Category 2 (nervous system)	Health hazard	Danger; Warning	Causes damage to organs (blood) through prolonged or repeated exposure; May cause damage to organs (nervous system) through prolonged or repeated exposure	It was classified into Category 1 (blood) and Category 2 (nerve systems) based on the description that in a rat, with the dose (6.95–8.38 mg/kg) of guidance value within the range of guidance value in Category 1, inhibition of plasma, red blood cell and brain cholinesterase, and tendency toward anemia were observed, and in the dose (36.81 mg/kg) within the range of guidance value in Category 2, the decreased weight gains, consumption decreases, inhibition of plasma, red blood cell and brain cholinesterase, and an tendency toward anemia were observed (pesticide registration application documents) .
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=1.8microg/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 is Category 1, supposed not rapidly degrading (BIOWIN), and bioaccumulative (log Kow=4.7 (PHYSPROP Database, 2005)).