GHS Classification

ID1187 **thiacloprid**

CAS 111988-49-9 Date Classified: Oct. 23, 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 state material with a melting point of 140 degC or less has not been established. (136 degC of 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 metaloids(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 chlorine (but not oxygen and fluorine) and the chlorine is chemically bonded only to carbon (but not to other elements).
15	Organic peroxides	Not applicable	–	–	–	Organic compounds containing no -0-0- structure
16	Corrosive to metals	Classification not possible	–	–	–	Test methods applicable to solid substances are not available (Melting point: 136degC)

Health Hazards

	Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	We compared the LD50s in male rats (836mg/kg) and female rats (444mg/kg) (Agricultural Chemical Registration Data) in the oral administration test. Based on the lower of these two values, the substance was classified as Category 4.
1	Acute toxicity (dermal)	Not classified	–	–	–	It was set as the outside of Category based on rat LD50 >2000mg/kg (Agricultural Chemical Registration Data) for both male and female in the dermal administration test.
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 4	Exclamation mark	Warning	Harmful if inhaled	It was set as category 4 based on that the female rat LC50 of the inhalation exposure examination is about 1.223mg/L (Agricultural Chemical Registration Data).
2	Skin corrosion / irritation	Not classified	–	–	–	It carried out the outside of Category based on the description that there is no stimulativeness in the skin irritation test using rabbits (Agricultural Chemical Registration Data).
3	Serious eye damage / eye irritation	Not classified	–	–	–	Due to the description that it has no irritation in the eye irritation tests using rabbit (Agricultural Chemical Registration Data), it was set as the outsaide of Category.
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible; Skin sensitization: Not	(Respiratory sensitization)–; (Skin sensitization)–	(Respiratory sensitization)–; (Skin sensitization)–	(Respiratory sensitization)–; (Skin sensitization)–	Respiratory sensitization: no data available. Skin sensitization: in the Maximization method using a guinea pig, it carried out the outside of Category based on the statement (Agricultural Chemical Registration Data) with negativity.
5	Germ cell mutagenicity	Not classified	–	–	–	There is no result of human multi generation epidemiology, multi generation mutagenicity test, and germ cell in vivo mutagenicity test, and there is the description that it is negative in the somatic cell in vivo mutagenicity test (small core test using mouse bone marrow) (Agricultural Chemical Registration Data). So it is classified as the out of the Category.

6	Carcinogenicity	Category 2	Health hazard	Warning	Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)	Thyroid follicle cell adenoma and uterine adenocarcinomas are observed in rat by high-dose group (more than 500ppm), and the generation frequency of luteoma increases in the mouse. These are considered to be the pathological changes resulting from liver drug metabolism enzyme induction (Agricultural Chemical Registration Data). Based on these descripitons, it was classified into Category 2.
7	Toxic to reproduction	Not classified	–	–	–	In studies using rats and rabbits, although there was a publication (Agricultural Chemical Registration Data) that the inhibition of weight gains and ossification delayed were seen in the fetas animals in the dose which indicates general toxicity to a parental animals, the other toxicity was not indicated. So it was set as the outside of Category.
8	Specific target organs/systemic toxicity following single exposure	Category 1 (nervous system)	Health hazard	Danger	Cause damage to organs (nervous system)	It was considered as Category 1 (nerve systems) based on the descrption (Agricultural Chemical Registration Data) that piloerection, fall of an active and reactant, tremor, imperfect reflective and breathing abnormality were observed in rats at the dose of 300mg/kg within the range of guidance value in Category 1 .
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	Because of the description of confirming effects on liver in rats (changes of tissue in livers, an increase in liver weight, increasing concentration of cholesterol and protein, and increased enzymes), with the dosage (28.6mg/kg and 36.5mg/kg) within the limits of guidance value in Category 2 (Agricultural Chemical Registration Data), it was classifried 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 3	–	–	Harmful to aquatic life	It was classified into Category 3 from ErC50=90.7mg/L of algae (Green algae (Agricultural Chemical Registration Data, 2004).
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 rapid degradability and bioaccumulation potential are unknown.