GHS Classification

ID650 Flutolanil

CAS 66332-96-5 Date Classified: Jun. 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	Classification not possible	–	–	–	No data available
9	Pyrophoric liquids	Not applicable	–	–	–	Solid (GHS definition)
10	Pyrophoric solids	Not classified	–	–	–	Since it is thermostable at 150 degC (Agricultural Chemical Registration Data (1996)), it is judged that it does not ignite spontaneously even if it contacts air.
11	Self-heating substances and mixtures	Classification not possible	–	–	–	The melting points is 140 degC or less, and the test suitable for a liquid state substance has not been established.
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 oxygen and fluorine (but not chlorine) and these elements are chemically bonded only to carbon and hydrogen (but not to other elements).
15	Organic peroxides	Not applicable	–	–	–	Containing no -0-0- structure
16	Corrosive to metals	Classification not possible	–	–	–	Test methods applicable to solid substances are not available. Melting point: >55degC

Health Hazards

	Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Not classified	–	–	–	It was set as the outside of Category from rat LD50 > 10000mg/kg (Agricultural Chemical Registration Data (1996)).
1	Acute toxicity (dermal)	Not classified	–	–	–	It was set as the outside of Category from rat LD50 >5000mg/kg (Agricultural Chemical Registration Data (1996)).
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)	Not classified	–	–	–	Based on rat LC50 >5.98mg/L (Agricultural Chemical Registration Data (1996)) and description of "having no example of death", it was set as the outside of Category.
2	Skin corrosion / irritation	Not classified	–	–	–	As it was judged to have almost no skin irritation in the skin irritation test on guinea pigs (Agricultural Chemical Registration Data (1996)), it was classified as out of Category.
3	Serious eye damage / eye irritation	Not classified	–	–	–	Based on description (Agricultural Chemical Registration Data (1996)) "irritation was not indicated at all to the palpebral conjunctiva, the eyeball conjunctiva, and the cornea"as a result of the eye irritation examination using a rabbit, it was considered as the outside 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 [Skin sensitization] Since skin reactions were not identified at all by the Magnusson-Kligman Maximisation method using a guinea pigs(Agricultural Chemical Registration Data (1996)), it was put outside of the Category.
5	Germ cell mutagenicity	Not classified	–	–	–	Based on the negative result by the in vivo micronucleus examination (somatic cell in vivo mutagenicity test) using the mouse (Agricultural Chemical Registration Data (2005)), we classified it as Out Of Category.
6	Carcinogenicity	Not classified	–	–	–	As a result of the examination by long-term mix feed medication using rats and mice, the increase in the tumorigenic frequency originated from medication is not admitted in both animal kinds (Agricultural Chemical Registration Data (1996)). And having been evaluated as "not carcinogenic" in the pesticide residues stability monitoring board, it carried out the outside of category.

7	Toxic to reproduction	Not classified	–	–	–	There is no effect to reproductive function and reproductive potential such as mating, delivery and nursing in the rat two generation reproduction study (Agricultural Chemical Registration Data (1996)), and there is no effect of considerable caused by test subject administration on the test of fetal external surface, organs and sccafold in the organogenetic period teratogenicity test to rat and rabbit (Agricultural Chemical Registration Data (1996)). As mentioned above, since it was judged having reproductive toxicity, it was considered as on the outside of Categry.
8	Specific target organs/systemic toxicity following single exposure	Not classified	–	–	–	There is the fact that there is the effect only to the fall of transient locomotor activity by the dose up to 10000mg/kg via the oral route, and there is no effect by test substance by the concentration of 5.98mg/L of inhalation, for both of male and female, in the single exposure test by oral or inhalations (dust) using a rat (Agricultural Chemical Registration Data (1996)). So it is classified as the out of the Category
9	Specific target organs/systemic toxicity following repeated exposure	Not classified	–	–	–	In the 13-week repetition oral administration examination using rats,mice or dogs, material toxic effect is not acknowledged by the dose exceeding a guidance value maximum (100 mg/kg/day) (Agricultural Chemical Registration Data (2005), JMPR (2002)). Moreover, also when it is administrated orally over a long-term (one-year and half-two years) to a rat, mice or dogs, the serious influence in the dosage exceeding a guidance value range maximum is not admitted (JMPR (2002)). Thus, in each test of defferent administration period using multiple species, all were carried out the outside of Category based on the fact of not admitting material toxic effect, by each dose exceeding a guidance value range maximum. In addition, the increase in weight of liver and the thyroid gland, and the fatty degeneration and vacuolation of hepatocyte, etc. are reported in the high capacity doses (Agricultural Chemical Registration Data (2005), JMPR (2002))
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 2	–	–	Toxic to aquatic life	It was classified into Category 2 from 96-hour LC50=3.21mg/L of fishes (Carp) (Agricultural Chemical Registration Data, 2004).
11	Hazardous to the aquatic environment (chronic)	Category 2	Environment	–	Toxic to aquatic life with long lasting effects	Classified into Category 2, since acute toxicity was Category 2 and supposed not rapidly degrading (BIOWIN), though supposed less bio-accumulative (log Kow=3.7(PHYSPROP Database, 2005)).