GHS Classification

ID1147 **endothal**

CAS 145-73-3 Date Classified: Dec. 18, 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	Not classified	–	–	–	Non-combustible (PM, 13th, 2003; HSDB, 2002)
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	Not classified	–	–	–	Non-combustible (PM, 13th, 2003; HSDB, 2002)
11	Self-heating substances and mixtures	Not classified	–	–	–	Non-combustible (PM, 13th, 2003; HSDB, 2002)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	–	–	–	Metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At) is not included (in the case of free objects, instead of 2 sodium salt, etc.).
13	Oxidizing liquids	Not applicable	–	–	–	Solid (GHS definition)
14	Oxidizing solids	Not applicable	–	–	–	Organic compounds containing oxygen bonded to only carbon and hydrogen (not disodium salt but free body))
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. Non-corrosive to metals (HSDB, 2002)

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	Because the oral LD50 in rats was 248mg/kg (Agricultural Chemical Registration Data (1994)), the substance was classified as Category 3. [Note] All the test data regarding health hazards were obtained from tests using the disodium salt preparation of this substance. For the GHS classification, we classified the substance as a disodium salt preparation.
1	Acute toxicity (dermal)	Classification not possible	–	–	–	Rat dermal LD50 was >2000mg/kg (Agricultural Chemical Registration Data (1994)). But data are insufficient for classification, and it cannot be classified.
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	Since it was rat inhalation LC50 (mist, 4 hours) = 1.85mg/L (Agricultural Chemical Registration Data (1994)), it was set as Category 4.
2	Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Since severe irritation was indicated to skin of rabbits as a result of the skin irritation study using a rabbit (Agricultural Chemical Registration Data (1994)), it was set as Category 2.
3	Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	In the irritation study using rabit (correspond to GLP), the results of Draize scores after 24, 48, 72 hours of test articles dripping study are equivalent to Category 2A, and also all irritative changes disappeared until 14 days (Agricultural Chemical Registration Data) (1992)).Therefore, it was classified into Category 2A.
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 skin sensitivity test (the Maximization method, the Buehler method (all are GLP correspondences)) using a guinea pig, since the negative result was shown (all are Agricultural Chemical Registration Data (1994)), it carried out the outside of Category.
5	Germ cell mutagenicity	Classification not possible	–	–	–	There is only the negative data in the in vitro reverse mutation test using salmonella and E..coli (Agricultural Chemical Registration Data (1994)), and no data of in vivo mutagenicity test. So it cannot be classified because of insufficient data.
6	Carcinogenicity	Not classified	–	–	–	In the carcinogenicity tests using rat and mouse, since generating of treatment-related increased tumor by this product was not observed (Agricultural Chemical Registration Data (1994)), it was outer the Category.
7	Toxic to reproduction	Classification not possible	–	–	–	In the teratogenicity study using a rat, although effect was not admitted (Agricultural Chemical Registration Data (1994)), since the assessments to reproductive potential is not made, it cannot be classified due to insufficient data.

8	Specific target organs/systemic toxicity following single exposure	Category 1 (nervous system)	Health hazard	Danger	Cause damage to organs (nervous system)	Since in the acute toxicity tests where the amount which is equivalent to Category 1 in a guidance value is orally administered to the rat and the mouse, the symptoms such as lethargy, decreased activity, abdominal position, muscle fasciculation, and in pharmacological tests in the mouse, decrease in locomotor activity trend were observed (Agricultural Chemical Registration Data (1994)), it was considered as Category 1 (nerve systems).
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver, stomach, testes)	Health hazard	Warning	May cause damage to organs (liver, stomach, testes) through prolonged or repeated exposure	Because of observed changes in the tissues of liver, stomach, and testes by repeated administration to dogs, and of observed hyperkeratotic thickening of the stratum spinosum of gastric by repeated administration to rats (both in Agricultural Chemical Registration Data (1994)), and of that these doses were equivalent to a guidance value in Category 2, it classified into Category 2 (liver, stomach, testis).
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)	Not classified	–	–	–	It carried out the outside of Category from 48-hour EC50>100 mg/L of Crustacea (Daphnia magna) (Agricultural Chemical Registration Data, 2004).
11	Hazardous to the aquatic environment (chronic)	Not classified	–	–	–	Since not water-insoluble (water solubility=100000mg/L(PHYSPROP Database, 2005)) and acute toxicity is low.