

GHS Classification

ID1224

carbophenothion

CAS 786-19-6

Date Classified: Jan. 23, 2007 (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	-	-	-	Liquid (GHS definition)
3 Flammable aerosols	Not applicable	-	-	-	Not aerosol products
4 Oxidizing gases	Not applicable	-	-	-	Liquid (GHS definition)
5 Gases under pressure	Not applicable	-	-	-	Liquid (GHS definition)
6 Flammable liquids	Not classified	-	-	-	Although it is flammable (ICSC (J), 1997), there is almost no vapor pressure (ICSC (J), 1997). And PM (13th, 2003) has the description "it is stable in temperature up to 80 degC", it was thought that there was no danger of fire, and it was classified as out of Category.
7 Flammable solids	Not applicable	-	-	-	Liquid (GHS definition)
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 classified	-	-	-	PM (13th, 2003) has the description "it is stable in temperature to 80 degC", and even if it contacts the normal temperature air, it does not ignite spontaneously.
10 Pyrophoric solids	Not applicable	-	-	-	Liquid (GHS definition)
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Test methods applicable to liquid substances are not available
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Stable to water (the water solubility is obtained)
13 Oxidizing liquids	Classification not possible	-	-	-	No data available
14 Oxidizing solids	Not applicable	-	-	-	Liquid (GHS definition)
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	Although HSDB (2003) has the description "it has no corrosion behavior," it is not clear whether the description is applied to metal. Since data is insufficient, it cannot be classified.

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	Based on the rat oral LD50 values : 6.8mg/kg (RTECS(2003)) and 20mg/kg (HSDB (2003)), we adopted the lower value to classify the substance as Category 2.
1 Acute toxicity (dermal)	Category 1	Skull and crossbones	Danger	Fatal in contact with skin	Rat dermal LD50 = 27mg/kg (RTECS (2003)). Rabbit dermal LD50 = 1270mg/kg (RTECS (2003)). The lower one (LD50 = 27 mg/kg) was adopted, and it was set as Category 1.
1 Acute toxicity (inhalation: gas)	Not applicable	-	-	-	Liquid (GHS definition)
1 Acute toxicity (inhalation: vapour)	Classification not possible	-	-	-	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	-	-	-	No data available
2 Skin corrosion / irritation	Classification not possible	-	-	-	No data available
3 Serious eye damage / eye irritation	Classification not possible	-	-	-	Although there is description that redness and a pain are produced in a human eye in ICSC(J)(1997), irritation is not indicated as effects of short-term exposure. So data is insufficient and it cannot taxonomic.
4 Respiratory/skin sensitization	respiratory sensitization: Classification not possible; Skin sensitization: Classification not possible	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	(Respiratory sensitization)-; (Skin sensitization)-	No data available
5 Germ cell mutagenicity	Classification not possible	-	-	-	No data. In addition, there is that positive the in vitro sister-chromatid-exchange test using a human lymphocytes reports (RTECS (2003)).
6 Carcinogenicity	Classification not possible	-	-	-	No data available

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	In three generations of rat mixed feed administration tests, since the fall of newborn weight, the increase in stillbirth, and decline in the survival rate until weaning were seen (HSDB (2003)), it was set as Category 2. In addition, teratogenicity is not acknowledged (HSDB (2003)).
8	Specific target organs/systemic toxicity following single exposure	Category 2 (nervous system)	Health hazard	Warning	May cause damage to organs (nervous system)	Since there is description "nervous system may be affected and a spasm and a respiratory failure may be produced" in the document of Priority 2 (ICSC (J) (1997)), and there is a report of the poisoning (vomiting, nausea, and a person with an severe disease fall into a comatose state) by this product (HSDB (2003)), it was considered as Category 2 (nervous system).
9	Specific target organs/systemic toxicity following repeated exposure	Category 1 (nervous system)	Health hazard	Danger	Causes damage to organs (nervous system) through prolonged or repeated exposure	Since tremor, decreased weight gain, and the decreased of cholinesterase activity were observed in four weeks of rat feeding administration test (100 ppm : about 5 to 10 mg/kg/day) (HSDB (2003)), and this dosage was within the guidance value range of Category 1, it was classified into Category 1 (nervous systems). Furthermore, the this product is a cholinesterase inhibitor, and there is description of a possibility that influence will be accumulated (ICSC (J), (1997), SITTIIG (4th, 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 1	Environment	Warning	Very toxic to aquatic life	It was classified into Category 1 from 96-hour LC50=1.2microg/L of Crustacea (Glass shrimp) (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=5.33 (PHYSPROP Database, 2005)).