

## GHS Classification

**ID786**

**CAS 86-50-0**

### Physical Hazards

**O,O-dimethyl-4-oxobenzotriazin-3-ylmethyl phosphorodithioate**

Date Classified: Feb. 20, 2007 (Environmental Hazards: Mar. 31, 2006)

Reference Manual: GHS Classification Manual (Feb. 10, 2006)

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Explosives	Classification not possible	-	-	-	No data available
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	-	-	-	Even if it contacts the normal temperature air, it does not ignite (HSDB (2005)).
11 Self-heating substances and mixtures	Classification not possible	-	-	-	Since the melting points are 73 - 74 degC (ICSC (1998), Merck (13th, 2001)), and 140 degC or less, test for which it was suitable has not been established.
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	-	-	-	Not react with water. (Weiss, 2nd, 1985)
13 Oxidizing liquids	Not applicable	-	-	-	Solid (GHS definition)
14 Oxidizing solids	Classification not possible	-	-	-	No data available
15 Organic peroxides	Not applicable	-	-	-	There are no chemical groups associated with peroxide present in the molecule.
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to solid substance are not available.

### 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	They were classified into Category 2 based on the value of LD50=10.87 mg/kg obtained by statistics calculation from 32 data of rat oral LD50 value (JMPR 818 (1991), ACGIH (2002), JMPR 111 (1968), PD No.59 (1985), and EHC 63 (1986)).
1 Acute toxicity (dermal)	Category 2	Skull and crossbones	Danger	Fatal in contact with skin	It was classified into Category 2 based on the value of LD50 = 93.77mg/kg obtained by statistics calculation of ten data (JMPR 818 (1991), ACGIH (2002), PD No.59 (1985)) of rat percutaneous LD50 values.
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	Based on level LC50 = 0.126mg/L obtained by statistics calculation of six data of rat inhalation LC50 (4hr) level (PATTY (5th, 2001), JMPR 818 (1991), ACGIH (2002)), it was classified into category 2.
2 Skin corrosion / irritation	Not classified	-	-	-	Since irritation is not caused in rabbit test (ACGIH (2002), JMPR 818 (1991)), it classified as out of Category.
3 Serious eye damage / eye irritation	Category 2B	-	Warning	Causes eye irritation	Based on the statement that "Caused no significant reaction" (JMPR 818 (1991), and "slightly irritating" (IUCLID (2000) in the rabbit test, it was set as Category 2B.
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. Skin sensitization : We classified it as Category 1 since it had induced skin sensitization (JMPR 818 (1991)) for two kinds of skin sensitivity tests (Magnusson and Kligman maximization test and Buehler Patch test).
5 Germ cell mutagenicity	Not classified	-	-	-	Based on the negative results (ACGIH (2002), JMPR 255 (1973), and JMPR 818 (1991)) for the in vivo mouse dominant lethality examination (over generation mutagenicity test) and the in vivo mouse micronucleus examination (somatic mutagenicity test), we classified it as Out Of Category.
6 Carcinogenicity	Not classified	-	-	-	It is classified into A4 according to GCGIH. Based on that sufficient evidence of carcinogenic is not acquired in the 80-week and two-year tests using rats and mice (NTP TR/69 (1978), ACGIH (2002)), it was classified out of Category.

7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	It was classified into category 2 based on the statement that increase lethality pre/post implantation and decrease of fetal viability were observed with dose of the level causing a decreased cholinesterase activities in maternal in pregnant rabbit administration (ACGIH (2002)), that decrease of offspring viability is observed in rat one- and two-generation administration test with dose of the level occurring mortality and cholinesterase inhibition to parental animals (ACGIH (2002)) and that decline of child viability till weaning on the level causing maternal mortality in 3 generations of mice study (JMPR 111 (1968)).
8	Specific target organs/systemic toxicity following single exposure	Category 1 (nervous system)	Health hazard	Danger	Cause damage to organs (nervous system)	It classified into Category 1 (nervous systems). Based on the cholinesterase prevention and cholinergic action in rat oral examination (PATTY (5th, 2001)), and the report of the condition under the nerve influence in humans (ACGIH (2002)).
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	Based on that in the study using a rat, a mouse, and a dog within the limits of the guidance value dosage of Category 1, the influence symptom to nervous systems, such as cholinergic signs, and cholinesterase inhibition were observed (ACGIH and (2002), JMPR 111 (1968)), and cholinesterase inhibition being observed in humans (ACGIH (2002), JMPR 255 (1973), PD No.59 (1985)), it was classified into Category 1 (nervous systems).
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=0.00029mg/L of Crustacea (Mysid shrimp) (ECETOC TR91, 2003).
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 was Category 1, supposed not rapidly degrading (BIOWIN), though supposed less bioaccumulative (log Kow=2.75(PHYSPROP Database, 2005)).