

## GHS Classification

**ID827**

**Phenol, 4,4'-thiobis[2-(1,1-dimethylethyl)-5-methyl]-**

**CAS 96-69-5**

Date Classified: May 24, 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	Not classified	-	-	-	Flash point: 240degC (Lange, 16th, 2005) and a non-pyrophoric substance at a room temperature.
11 Self-heating substances and mixtures	Classification not possible	-	-	-	No data available
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 metalloids(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 (but not chlorine and fluorine) and the oxygen is chemically bonded only to carbon and hydrogen (but not to other elements).
15 Organic peroxides	Not applicable	-	-	-	Organic compounds containing no -O-O- structure
16 Corrosive to metals	Classification not possible	-	-	-	Test methods applicable to solid substances are not available.

**Health Hazards**

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 5	-	Warning	May be harmful if swallowed	Category 5 based on SPECIES: Rat; ENDPOINT: LD50; 2345mg/kg; REFERENCE SOURCE: (RTECS 2005)
1 Acute toxicity (dermal)	Classification not possible	-	-	-	No data available
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)	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	-	-	-	No data available
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)-; (Skin sensitization)May cause allergic skin reaction	Respiratory sensitization: There is no data and we could not classify it. Skin sensitization: We classified it as Category 1 based on the enrollment in which the patient who developed the contact skin hazard with the rubber gloves including this substance gave the positive result for the patch test (ACGIH (2001)).
5 Germ cell mutagenicity	Classification not possible	-	-	-	Although there is a report of negative results for in vitro Ames' test and chromosomal aberration test (Ministry of Health and Welfare reports (2006) and ACGIH (2001)) since there is no report of in vivo examination, it cannot be classified.
6 Carcinogenicity	Not classified	-	-	-	Carcinogenesis was not observed in the study in NTP, and it was A4 in ACGIH. It considered as the outside of Category.
7 Toxic to reproduction	Classification not possible	-	-	-	Although there is a description that there is effect on maternal lethality and decrease of infant viability, but no effect on live fetuses count, fetuses count, weight at newborn and increase infant weight in pregnant mouse administration test (NTPTR435 (1994)), it cannot be classified due to insufficient data.
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	-	-	-	There is a test report of a rat but no report of humans. Since diarrhea is only acknowledged out of the guidance value of Category 2, it cannot be classified due to insufficient data.

9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (intestinal tract, liver)	Health hazard	Warning	May cause damage to organs (intestinal tract, liver) through prolonged or repeated exposure	Based on a statement where within the guidance value of Category 2, influence on an intestinal tract (vacuolation of absorptive epithelial cells and cell infiltration of membrane at cecum and colon, the hyperplasia of the small intestinal wall, etc.), increase in liver weight, and hypertrophy of hepatocyte around lobule were observed (Ministry of Health and Welfare reports (2006)), it was classified into Category 2 (intestines, 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)	Classification not possible	-	-	-	No data available
11 Hazardous to the aquatic environment (chronic)	Classification not possible	-	-	-	No data available.