GHS Classification

ID483 **hexakis(2-methyl-2-phenylpropyl)distannoxane**

CAS 13356-08-6 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	—	—	—	Containing no chemical groups with explosive properties
2	Flammable gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
3	Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4	Oxidizing gases	Not applicable	—	—	—	Classified as "solid" according to GHS definition
5	Gases under pressure	Not applicable	—	—	—	Classified as "solid" according to GHS definition
6	Flammable liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
7	Flammable solids	Classification not possible	—	—	—	Classification not possible due to lack of data
8	Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9	Pyrophoric liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
10	Pyrophoric solids	Not classified	—	—	—	Considered non-pyrophoric when in contact with air at ordinary temperatures since the substance is stable to heat (up to 280degC) (Agricultural Chemical Registration Data)
11	Self-heating substances and mixtures	Not classified	—	—	—	Stable to heat (up to 280degC) (Agricultural Chemical Registration Data)
12	Substances and mixtures, which in contact with water, emit flammable gases	Not classified	—	—	—	Stable to water (water solubility: 15.78*10^(-6)g/L (20degC) (Agricultural Chemical Registration Data))
13	Oxidizing liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
14	Oxidizing solids	Not applicable	—	—	—	Organic compounds containing no oxygen, fluorine or chlorine
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 with melting point of >55degC are not available (melting point: 140-145degC (Agricultural Chemical Registration Data)).

Health Hazards

	Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1	Acute toxicity (oral)	Not classified	—	—	—	Based on the rat LD50 (oral route) value of >5,000mg/kg (Agricultural Chemical Registration Data (1979)).
1	Acute toxicity (dermal)	Not classified	—	—	—	Based on the rat LD50 (dermal route) value of >5,000mg/kg (Agricultural Chemical Registration Data (1979)).
1	Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is a solid according to the GHS criteria and inhalation of its gas is not expected.
1	Acute toxicity (inhalation:	Classification not possible	—	—	—	No data available
1	Acute toxicity (inhalation: dust, mist)	Classification not possible	—	—	—	Classification cannot be determined, though the available rat inhalation study reported the LC50 value of >1.83mg/L (4 hours) (Agricultural Chemical Registration Data (1987)).
2	Skin corrosion / irritation	Category 2	Exclamation mark	Warning	Causes skin irritation	Based on the description in the report on skin irritation tests in mammals (species unknown) (HSDB (2006)): "Irritating" (though exposure duration and severity of the effects are not presented).
3	Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	Based on the description in the report on eye irritation tests in mammals (species unknown) (HSDB (2006)): "Severely irritating."
4	Respiratory/skin sensitization	Respiratory sensitization: Classification not possible Skin sensitization: Not classified	(Respiratory sensitization)— (Skin sensitization)—	(Respiratory sensitization)— (Skin sensitization)—	(Respiratory sensitization)— (Skin sensitization)—	Respiratory sensitization: No data available Skin sensitization: No skin sensitizing potential was found in guinea pig sensitization tests employing the Maximization method (Agricultural Chemical Registration Data (2004)).
5	Germ cell mutagenicity	Not classified	—	—	—	Based on negative data in in vitro chromosome aberration tests, in vitro gene mutation tests in bacteria and yeast, mouse in vivo micronucleus tests, in vivo chromosome aberration tests and in vivo dominant lethal tests (Agricultural Chemical Registration Data (1979, 2004, 2005)).
6	Carcinogenicity	Not classified	—	—	—	There was no treatment-related increase in tumor incidence observed in rat and mouse carcinogenicity studies (Agricultural Chemical Registration Data (1979)). Also due to the fact that the substance is classified as Category A4 by ACGIH (2006).
7	Toxic to reproduction	Not classified	—	—	—	Based on no evidence of adverse effects on reproduction or offspring development observed in rat 3-generation reproduction studies and rat/rabbit teratogenicity studies (Agricultural Chemical Registration Data (1979, 1987)).

8	Specific target organs/systemic toxicity following single exposure	Category 1 (respiratory organs, kidneys), Category 2 (liver, testes)	Health hazard	Danger	Causes damage to organs (respiratory organs, kidneys) May cause damage to organs (liver, testes)	Based on the evidence from animal studies: "Inhalation exposure produced necrosis of bronchiolar epithelium, lung congestion and edema, and lesions in renal tubule epithelium" (JMPR (1992)), "massive fatty changes in the liver, reduced spermatogenesis" (JMPR (1977)). These effects were observed at dosing levels within the guidance value ranges for Category 2.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	—	—	—	Insufficient data available.
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 hours LC50=2.0microg/L of the fish (Carp) (Agricultural Chemical Registration Data, 2004).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Since acute toxicity was Category 1 and there was no rapidly degrading (BIOWIN), and since there wasbio-accumulation (log Kow=5.2 (PHYSPROP Database, 2005)), it was classified into Category 1.