

GHS Classification

ID481

CAS 12071-83-9

Physical Hazards

Polymer of N,N'-propylenebis(dithiocarbamic acid) and zinc

Date Classified: Dec. 18, 2006 (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	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	Classification not possible	—	—	—	Classification not possible due to lack of data
11 Self-heating substances and mixtures	Classification not possible	—	—	—	Classification not possible due to lack of data
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	—	—	—	Stable to water (water solubility: <0.01g/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	—	—	—	Classification not possible due to lack of 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 >2,500mg/kg, together with the absence of mortality (Agricultural Chemical Registration Data (1968)).
1 Acute toxicity (dermal)	Classification not possible	—	—	—	Classification cannot be determined, though the available rat dermal study reported the LD50 value of >1,000mg/kg (Agricultural Chemical Registration Data (1968)).
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: dust, mist)	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 >0.557mg/L (4 hours) (Agricultural Chemical Registration Data (1968)).
2 Skin corrosion / irritation	Classification not possible	—	—	—	The substance was "not irritating" in rabbit skin irritation tests, but no details (including exposure duration) were given (IUCLID (2000)).
3 Serious eye damage / eye irritation	Classification not possible	—	—	—	The substance was "not irritating" in rabbit eye irritation tests, but no details (including exposure duration) were given (IUCLID (2000)).
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 an allergic skin reaction	Respiratory sensitization: No data available Skin sensitization: Based on positive results in guinea pig skin sensitization tests employing the Draize method (Agricultural Chemical Registration Data (1989)).
5 Germ cell mutagenicity	Not classified	—	—	—	Based on negative data in in vitro reverse mutation tests, in vivo micronucleus tests on mouse bone marrow cells and mouse in vivo dominant lethal tests, though in vitro chromosome aberration tests gave positive results (Agricultural Chemical Registration Data (1989)).
6 Carcinogenicity	Not classified	—	—	—	There was no treatment-related increase in tumor incidence observed in rat and mouse carcinogenicity studies (Agricultural Chemical Registration Data (1978, 1989)).
7 Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the evidence of reduced litter size at doses causing parental toxicity in rat 3-generation reproduction tests. Also based on the evidence of runtling syndrome, deformed long bones of the limbs, increased postimplantation loss, and a decreased number of live fetuses at parentally toxic doses observed in teratogenicity studies in rats and rabbits (Agricultural Chemical Registration Data (1978, 1989)).
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	Insufficient data available.
9 Specific target organs/systemic toxicity following repeated exposure	Classification not possible	—	—	—	Insufficient data available.

10	Aspiration hazard	Classification not possible	—	—	—	No data available
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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 72 hours ErC50=0.022mg/L of the algae (Green Algae) (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	Although acute toxicity is Category 1 and bio-accumulation is low (log Kow=2.06(PHYSROP Database, 2005)), since there was no rapidly degrading (BIOWIN), it was classified into Category 1.