GHS Classification

ID560

(Z)-2-chloro-1-(2,4,5-trichlorophenyl)vinyl dimethyl phosphate Date Classified: Nov. 20, 2006 (Environmental Hazards: Mar. 31, 2006)

CAS 22248-79-9 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	ı	-	_	Classified as "solid" according to GHS definition
3 Flammable aerosols	Not applicable	1	_	-	Not aerosol products
4 Oxidizing gases	Not applicable	I	-	_	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	1	_	_	Classified as "solid" according to GHS definition
7 Flammable solids	Classification not possible	-	-	_	No data available
8 Self-reactive substances and mixtures	Classification not possible	ı	-	_	Classification not possible due to lack of data, though containing unsaturated bonds (olefin).
9 Pyrophoric liquids	Not applicable	I	-	_	Classified as "solid" according to GHS definition
10 Pyrophoric solids	Classification not possible	I	-	_	No data available
11 Self-heating substances and mixtures	Classification not possible	ı	-	_	Test method applicable to liquid substances are not available (melting point: 97-98degC (Merck (13th, 2001)), test temperature: 140degC).
12 Substances and mixtures, which in contact with water, emit flammable gases	Not classified	ı	-	-	Stable to water (water solubility: 11ppm (Merck (13th, 2001)))
13 Oxidizing liquids	Not applicable	-	_	-	Classified as "solid" according to GHS definition
14 Oxidizing solids	Classification not possible	-	-	-	Cannot be classified, though being organic compounds containing oxygen (but not fluorine and chlorine) bound to elements other than carbon and hydrogen.
15 Organic peroxides	Not applicable	_	_	_	Organic compounds containing no "-0-0-" structure
16 Corrosive to metals	Classification not possible	_	-	_	Test methods applicable to solid substances with melting point of >55degC are not available (melting point: 97-98degC (Merck (13th, 2001))).

Health Hazards

Hazard class Classification Symbol Signal word hazard statement Acute toxicity (crai) Category 4 Exclamation mark Warning Harmful if swallowed Based on the rat LD50 (croil route) value of 480mg/kg (RTECS (2008)).		THE TREE TO							
Acute toxicity (dermal) Acute toxicity (inhalation: gas) Not applicable Classification not possible initiation Acute toxicity (inhalation: gas) Acute toxicity (inhalation: dost, mist) Serious eye damage / eye irritation Respiratory/skin sensitization Classification not possible Skin sensitization Skin sensitization Skin sensitization:	Haz	ard class	Classification	symbol	signal word	hazard statement	Rational for the classification		
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 (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	Based on the rat LD50 (oral route) value of 480mg/kg (RTECS (2006)).		
1 Acute toxicity (inhalation: 1 Acute toxicity (inhalation: 2 Skin corrosion / irritation 3 Serious eye damage / eye irritation 4 Respiratory sensitization: Classification not possible 5 Germ cell mutagenicity 5 Germ cell mutagenicity 6 Carcinogenicity 7 Toxic to reproduction 8 Specific target organs/systemic toxicity following single exposure 9 Specific target organs/systemic toxicity following single exposure 1 Acute toxicity (inhalation: 2 Classification not possible 3 Serious eye damage / eye irritation Classification not possible 5 Germ cell mutagenicity 6 Carcinogenicity 7 Toxic to reproduction 8 Specific target organs/systemic toxicity following single exposure 9 Specific target organs/systemic toxicity following grepeated exposure 1 Acute toxicity (inhalation: 2 Classification not possible	1	Acute toxicity (dermal)	Category 4	Exclamation mark	Warning		Based on the rat LD50 (dermal route) value of 1,500mg/kg (RTECS (2006)).		
Acute toxicity (inhalation: dust, mist) Acute toxicity (inhalation: dust, mist) Acute toxicity (inhalation: d	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.		
mist)	1	Acute toxicity (inhalation:	Classification not possible	-	_	-	Insufficient data available		
Serious eye damage / eye irritation Serious eye damage / eye irritation Classification not possible -	1		Classification not possible	_	ı	_	No data available		
irritation Respiratory sensitization: Classification not possible Skin sensitization not possible Skin sensitization not possible Classification not possible Classification not possible Skin sensitization)— (Skin sensit	2	Skin corrosion / irritation	Classification not possible	-	-	-	No data available		
Classification not possible Skin sensitization: Classification not possible Skin sensitization: Classification not possible 5 Germ cell mutagenicity Classification not possible Carcinogenicity Not classified — — — Insufficient data available 6 Carcinogenicity Not classified — — — Due to the fact that the substance is classified as Group 3 by IARC Suppl 7 (1987). 7 Toxic to reproduction Classification not possible — — — No data available 8 Specific target organs/systemic toxicity following single exposure toxicity following repeated exposure Classification not possible — — — — Classification not possible due to the insufficiency of data. Classification not possible sensitization)— Skin sensitization)— Skin sensitization: No data available Due to the fact that the substance is classified as Group 3 by IARC Suppl 7 (1987). No data available Based on the evidence from animal studies including "somnolency (general suppression of activity)" (RTECS (2006)). Category 3 (narcotic effects) Classification not possible due to the insufficiency of data. Classification not possible due to the insufficiency of data.	3		Classification not possible	_	_	_	No data available		
6 Carcinogenicity Not classified — — — Due to the fact that the substance is classified as Group 3 by IARC Suppl 7 (1987). 7 Toxic to reproduction Classification not possible — — — No data available Specific target organs/systemic toxicity following single exposure toxicity following repeated exposure Specific target organs/systemic toxicity following repeated exposure Classification not possible Classification not possible Due to the fact that the substance is classified as Group 3 by IARC Suppl 7 (1987). No data available Based on the evidence from animal studies including "somnolency (general suppression of activity)" (RTECS (2006)). Category 3 (narcotic effects) Specific target organs/systemic toxicity following repeated exposure Classification not possible due to the insufficiency of data.	4	Respiratory/skin sensitization	Classification not possible Skin sensitization:	sensitization) — (Skin sensitization) —	sensitization) — (Skin	sensitization)—			
7 Toxic to reproduction Classification not possible — — — No data available 8 Specific target organs/systemic toxicity following single exposure 9 Specific target organs/systemic toxicity following repeated exposure 1	5	Germ cell mutagenicity	Classification not possible	-	-	-	Insufficient data available		
8 Specific target organs/systemic toxicity following single exposure 9 Specific target organs/systemic toxicity following repeated exposure Classification not possible Classification not possible Specific target organs/systemic toxicity following single exposure Category 3 (narcotic effects) Warning (Narcotic effects) May cause drowsiness or dizziness Classification not possible due to the insufficiency of data. Classification not possible due to the insufficiency of data.	6	Carcinogenicity	Not classified	-	_	-	Due to the fact that the substance is classified as Group 3 by IARC Suppl 7 (1987).		
toxicity following single exposure Gategory 3 (narcotic effects) Cause drowsiness or dizziness Gizziness Classification not possible due to the insufficiency of data. Classification not possible due to the insufficiency of data.	7	Toxic to reproduction	Classification not possible	-	-	-	No data available		
toxicity following repeated Classification not possible exposure	8	Specific target organs/systemic toxicity following single exposure	Category 3 (narcotic effects)		Warning	cause drowsiness or	Based on the evidence from animal studies including "somnolency (general suppression of activity)" (RTECS (2006)).		
10 Aspiration hazard Classification not possible No data available	,	toxicity following repeated exposure	,	-	1	_			
	10	Aspiration hazard	Classification not possible	_	_	_	No data available		

Environmental Hazards

Haz	ard 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 48 hours EC50=1.9ppb of the crustacea (Daphnia magna) (AQUIRE, 2003).
11	Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	very toxic to aquatic life	Although acute toxicity was Category 1 and bio-accumulation was low (BGF=82 of (Z)-2-chloro-1-(2.4.5-trichloropheny)/vinyl dimethyl phosphate; tetrachlorvinphos (Existing Chemical Safety Inspections Data)), and there was no rapidly degrading (the decomposition by BOD of (Z)-2-chloro-1-(2.4.5-trichloropheny)/vinyl dimethyl phosphate; tetrachlorvinphos; 0% (Existing Chemical Safety Inspections Data)), it was classified into Category 1.