

GHS Classification

ID269

CAS 51630-58-1

Physical Hazards

alpha-Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutyrate; Fenvalerate

Date Classified: Nov. 20, 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	Not classified	—	—	—	Classified as flammable according to ICSG (2004). Classified into Division 6.1 (UN#3352 Pyrethroid Pesticide, liquid, toxic (ICSC (2004)) (UN Recommendation on the Transport of Dangerous Goods).
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	—	—	—	Classified into Division 6.1 (UN#3352 Pyrethroid Pesticide, liquid, toxic (ICSC (2004)) (UN Recommendation on the Transport of Dangerous Goods).
11 Self-heating substances and mixtures	Not classified	—	—	—	Classified into Division 6.1 (UN#3352 Pyrethroid Pesticide, liquid, toxic (ICSC (2004)) (UN Recommendation on the Transport of Dangerous Goods).
12 Substances and mixtures, which in contact with water, emit flammable gases	Not applicable	—	—	—	Containing no metals or metalloids (B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At)
13 Oxidizing liquids	Not applicable	—	—	—	Classified as "solid" according to GHS definition
14 Oxidizing solids	Not applicable	—	—	—	Organic compounds containing chlorine and oxygen (but not fluorine), with the chlorine and oxygen bound 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	—	—	—	Classification not possible due to lack of data on the substances with melting points of <55degC (melting point: 39.5-53.7degC, Agricultural Chemical Registration Data).

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 4	Exclamation mark	Warning	Harmful if swallowed	Based on the rat LD50 (oral route) value of 363mg/kg (Agricultural Chemical Registration Data (1983)).
1 Acute toxicity (dermal)	Not classified	—	—	—	Based on the rat LD50 (dermal route) value of >5000mg/kg, together with the absence of mortality at doses of not more than 5000mg/kg (Agricultural Chemical Registration Data (1983)).
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is a solid according to the GHS definition 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)	Category 4	Exclamation mark	Warning	Harmful if inhaled	Based on the rat LC50 (4 hour inhalation) value of 2.810mg/L (Agricultural Chemical Registration Data (1995)).
2 Skin corrosion / irritation	Not classified	—	—	—	Based on no evidence of toxic effects observed in human skin irritation studies, along with the absence of irritant effects observed in rabbit skin irritation studies (Agricultural Chemical Registration Data (1983)).
3 Serious eye damage / eye irritation	Not classified	—	—	—	Based on no evidence of irritant effects observed in rabbit eye irritation tests (Agricultural Chemical Registration Data (1983)).
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 the positive results reported in guinea pig skin sensitization studies (Agricultural Chemical Registration Data (1995)).
5 Germ cell mutagenicity	Not classified	—	—	—	Based on negative data on in vitro reverse mutagenicity tests, in vivo dominant lethal tests and in vivo chromosome aberration tests on bone marrow cells (Agricultural Chemical Registration Data (1983)).
6 Carcinogenicity	Not classified	—	—	—	The available carcinogenicity studies in rats and mice provide no evidence of treatment-related significant increase in the incidence of tumor formation, reported in Agricultural Chemical Registration Data (1983). Also due to the fact that the substance is classified as Group 3 by IARC
7 Toxic to reproduction	Not classified	—	—	—	Based on no evidence of adverse effects on reproductive function/capacity and pup development observed in 3-generation reproduction studies in rats and gestation studies in rats and rabbits (Agricultural Chemical Registration Data (1983)).
8 Specific target organs/systemic toxicity following single exposure	Category 2 (nervous system)	Health hazard	Warning	May cause damage to organs (nervous system)	In rat and mouse single dose toxicity studies, clinical signs and symptoms including muscular fasciculations, tremors, clonic convulsions, paralysis, loss of righting reflex, lacrimation, salivation and incontinence were found (Agricultural Chemical Registration Data (1983)). These effects were observed at dosing levels within the guidance value ranges for Category 2.
9 Specific target organs/systemic toxicity following repeated exposure	Category 2 (nervous system, liver)	Health hazard	Warning	May cause damage to organs through prolonged or repeated exposure (nervous)	Based on the evidence from animal studies: "tremors and hepatic microgranulomas were found" (Agricultural Chemical Registration Data (1983)). These effects were observed at dosing levels within the guidance value ranges for Category 2.

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=0.008microg/L of the crustacea (Mysid Shrimp)) (EHC95, 1990).
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 was bio-accumulation (log Kow=6.2 (PHYSPROP Database, 2005)), it was classified into Category 1.