

GHS Classification

ID331

CAS 111872-58-3

Physical Hazards

2-(4-Bromodifluoromethoxyphenyl)-2-methylpropyl 3-phenoxybenzyl ether; Hhalfenprox

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 "liquid" according to GHS definition
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
5 Gases under pressure	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
6 Flammable liquids	Not classified	—	—	—	The flash point is 272degC (Agricultural Chemical Registration Data)
7 Flammable solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
8 Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Not classified	—	—	—	Considered non-pyrophoric when in contact with air at ordinary temperatures since the substance is stable to heat (up to 150degC) (Agricultural Chemical Registration Data)
10 Pyrophoric solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
11 Self-heating substances and mixtures	Not classified	—	—	—	Stable to heat (up to 150degC) (Agricultural Chemical Registration Data)
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	—	—	—	Organic compounds containing fluorine and oxygen (but not chlorine), with the fluorine and oxygen bound to carbon and hydrogen (but not to other elements)
14 Oxidizing solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition
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)	Category 3	Skull and crossbones	Danger	Toxic if swallowed	Based on the rat LD50 (oral route) value of 132mg/kg (Agricultural Chemical Registration Data (1993)).
1 Acute toxicity (dermal)	Not classified	—	—	—	Based on the absence of mortality at the highest dose of 2,000mg/kg observed in the dermal studies with rats (Agricultural Chemical Registration Data (1993)).
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is a liquid 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 2	Skull and crossbones	Danger	Fatal if inhaled	Based on the rat LC50 (inhalation route) value of 0.36mg/L (Agricultural Chemical Registration Data (1993)).
2 Skin corrosion / irritation	Not classified	—	—	—	Based on the evidence of only mild irritation reactions with a Draize score of 0.05, which healed within 48 hours, observed in rabbit skin irritation tests (Agricultural Chemical Registration Data (1993)).
3 Serious eye damage / eye irritation	Not classified	—	—	—	Based on the description in the report on rabbit eye irritation tests (Agricultural Chemical Registration Data (1993)): "Only mild irritation was seen immediately after the application with a Draize score of 0.2 at 24 hours, and the reactions cleared up by 48 hours." The substance is thus considered non-irritating to the skin.
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 skin sensitization studies, reported in Agricultural Chemical Registration Data (1993).
5 Germ cell mutagenicity	Classification not possible	—	—	—	Based on the absence of data on in vivo studies, though in vitro reverse mutation tests, DNA repair tests and chromosome aberration tests yielded negative results (Agricultural Chemical Registration Data (1993)).
6 Carcinogenicity	Not classified	—	—	—	There was no treatment-related evidence of tumor formation observed in 2-year (rats) and 18-month (mice) carcinogenicity studies (Agricultural Chemical Registration Data (1993)).
7 Toxic to reproduction	Not classified	—	—	—	Based on no evidence of adverse effects on reproduction and offspring development in rat 2-generation reproduction studies and rat/rabbit teratogenicity studies, reported in Agricultural Chemical Registration Data (1993).
8 Specific target organs/systemic toxicity following single exposure	Category 1 (nervous system)	Health hazard	Danger	Causes damage to organs (nervous system)	In rat single dose toxicity studies, clinical signs and symptoms including abnormal postures, abnormal gait and tremors were noticed (Agricultural Chemical Registration Data (1993)). These effects were observed at dosing levels within the guidance value ranges for Category 1.
9 Specific target organs/systemic toxicity following repeated exposure	Category 1 (nervous system, blood system)	Health hazard	Danger	Causes damage to organs through prolonged or repeated exposure (nervous system, blood system)	Based on the evidence from animal studies including convulsions, increased hematopoiesis associated with anemia (Agricultural Chemical Registration Data (1993)). These effects were observed at dosing levels within the guidance value ranges for Category 1.
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=0.0035ppm of the fish (Carp) (Agricultural Chemical Registration Data, 1993).
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=4.1 (PHYSPROP Database, 2005)), it was classified into Category 1.