

GHS Classification

ID551

CAS 67747-09-5

Physical Hazards

N-propyl-N-[2-(2,4,6-trichlorophenoxy)ethyl]imidazole-1-carboxamide

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	—	—	—	Test method applicable to liquid substances are not available (melting point: 38.5-41.0degC (Agricultural Chemical Registration Data), test temperature: 140degC).
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: 38.5-41.0degC (Agricultural Chemical Registration Data)).

Health Hazards

Hazard class	Classification	symbol	signal word	hazard statement	Rational for the classification
1 Acute toxicity (oral)	Category 5	—	Warning	May be harmful if swallowed	Based on the rat LD50 (oral route) value of 2,655mg/kg (Agricultural Chemical Registration Data (1996)).
1 Acute toxicity (dermal)	Not classified	—	—	—	Based on the rat LD50 (dermal route) value of >5,000mg/kg (Agricultural Chemical Registration Data (1996)).
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 >2.16mg/L (4 hours) (Agricultural Chemical Registration Data (1996)).
2 Skin corrosion / irritation	Not classified	—	—	—	Based on no evidence of irritation observed in rabbit skin irritation tests (Agricultural Chemical Registration Data (1996)).
3 Serious eye damage / eye irritation	Not classified	—	—	—	Based on the evidence of mild irritation occurring immediately after exposure, with effects resolving by 24 hours, observed in rabbit eye irritation tests (Agricultural Chemical Registration Data (1996)).
4 Respiratory/skin sensitization	Respiratory sensitization: Classification not possible Skin sensitization: Classification not possible	(Respiratory sensitization) — (Skin sensitization) —	(Respiratory sensitization) — (Skin sensitization) —	(Respiratory sensitization) — (Skin sensitization) —	Respiratory sensitization: No data available Skin sensitization: Insufficient data available
5 Germ cell mutagenicity	Not classified	—	—	—	Based on negative data in reverse mutation tests in bacteria, in vitro DNA repair tests, in vitro chromosome aberration tests, gene mutation tests on mouse lymphoma cells, in vitro unscheduled DNA synthesis tests, mouse in vivo micronucleus tests and mouse dominant lethal tests (Agricultural Chemical Registration Data (2003)).
6 Carcinogenicity	Not classified	—	—	—	Due to the fact that the substance is classified as Category C by EPA (1997).
7 Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the evidence of "a decreased number of live-born pups with an increase in the stillbirth rate" and "decreased postnatal viability" at doses causing a reduction in parental body weight gain observed in rat 2-generation reproduction studies. Also based on the evidence of "incomplete ossification of the sternum/vertebral arch" and "a decreased number of live fetuses/tendency of increased fetal mortality" at parentally toxic doses observed in rat teratogenicity studies (Agricultural Chemical Registration Data (2003)).

8	Specific target organs/systemic toxicity following single exposure	Category 2 (nervous system, accessory reproductive organs)	Health hazard	Warning	May cause damage to organs (nervous system, accessory reproductive organs)	Based on the evidence from animal studies including "central nervous system depressant effects, hunchback position, increased salivation, hypothermia, ataxia, bradypnea, lacrimation, tremors and convulsions" (JMPR (2001)), "effects on the prostate, seminal capsule, Cowper cyst and accessory gland" (RTECS (2006)). The effects on experimental animals were observed at dosing levels within the guidance value ranges for Category 1 (accessory reproductive organs) and Category 2 (nervous system). Since the referenced study for the accessory reproductive organs (RTECS (2006)) is assigned a priority rating of 2, these effects are classified into Category 2.
9	Specific target organs/systemic toxicity following repeated exposure	Category 2 (liver)	Health hazard	Warning	May cause damage to organs through prolonged or repeated exposure (liver)	Based on the evidence from animal studies including "lipogenesis of perlobular hepatocytes," "periportal vacuolization," and "increased fatty-droplet deposition in hepatocytes" (Agricultural Chemical Registration Data (1996)). 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 2	-	-	Toxic to aquatic life	It was classified into Category 2 from 72 hours ErC50=1.54mg/L of the algae (Green Algae) (Agricultural Chemical Registration Data, 2004).
11 Hazardous to the aquatic environment (chronic)	Category 2	Environment	-	Toxic to aquatic life with long lasting effects	Since acute toxicity was Category 2, there was no rapidly degrading (BIOWIN) and there was bio-accumulation (log Kow=4.1(PHYSPROP Database, 2005)), it was classified into Category 2.