

GHS Classification

ID356

CAS 76578-14-8

Physical Hazards

Ethyl 2-[4-(6-chloro-2-quinoxalinyloxy)phenoxy]propionate; Quizalofop-ethyl

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 | Classification not possible | — | — | — | No data available |
| 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 | — | — | — | No data available |
| 11 Self-heating substances and mixtures | Classification not possible | — | — | — | Test methods applicable to liquid substances are not available (melting point: 92.5-94.5degC (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 | — | — | — | Test methods applicable to solid substances with melting point of >55degC are not available (melting point: 92.5-94.5degC (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 1,480mg/kg (Agricultural Chemical Registration Data (1981)). |
| 1 Acute toxicity (dermal) | Not classified | — | — | — | Based on the rat LD50 (dermal route) value of >=5,000mg/kg (Agricultural Chemical Registration Data (1981)). |
| 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 5 | — | Warning | May be harmful if inhaled | Based on the rat LC50 (inhalation route) value of 5.8mg/L (Agricultural Chemical Registration Data (1983)). |
| 2 Skin corrosion / irritation | Not classified | — | — | — | Based on no evidence of irritation observed in rabbit skin irritation tests (Agricultural Chemical Registration Data (1982)). |
| 3 Serious eye damage / eye irritation | Not classified | — | — | — | Based on no evidence of irritation observed in rabbit eye irritation tests (Agricultural Chemical Registration Data (1982)). |
| 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 (1982). |
| 5 Germ cell mutagenicity | Not classified | — | — | — | Based on negative data on any of the in vitro studies (reverse mutation tests (Agricultural Chemical Registration Data, 1987), chromosome aberration tests (Agricultural Chemical Registration Data, 1982) and DNA repair tests (Agricultural Chemical Registration Data, 1987)) and in vivo micronucleus tests on mouse bone marrow cells (Agricultural Chemical Registration Data, 1981). |
| 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 (1985)). Also due to the fact that the substance is classified as Group D by EPA. |
| 7 Toxic to reproduction | Not classified | — | — | — | Based on no evidence of adverse effects on reproduction and offspring development in rat 2-generation reproduction studies (Agricultural Chemical Registration Data (1986)) and rat/rabbit teratogenicity studies (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 single dose toxicity studies, clinical signs and symptoms including reduced locomotor activity, crouching position and prone position were reported (Agricultural Chemical Registration Data (1981)). These effects were observed at dosing levels within the guidance value ranges for |
| 9 Specific target organs/systemic toxicity following repeated exposure | Category 2 (liver, testes) | Health hazard | Warning | May cause damage to organs through prolonged or repeated exposure (liver, testes) | In rat subacute toxicity studies, clinical signs and symptoms including hepatocellular swelling and testicular atrophy were noted (Agricultural Chemical Registration Data (1982)). 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=0.293mg/L of the fish (Carp) (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 | Since acute toxicity was Category 1 and there was no rapidly degrading (BIOWIN), and since there was bio-accumulation (log Kow=4.28 (PHYSPROP Database, 2005)), it was classified into Category 1. |