

GHS Classification

ID424
CAS 3861-47-0

3,5-diiodo-4-octanoyloxybenzonitrile

Date Classified: Dec. 18, 2006 (Environmental Hazards: Feb. 20, 2007)

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	—	—	—	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	—	—	—	Classification not possible due to lack of 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	—	—	—	Classified as "solid" according to GHS definition
14 Oxidizing solids	Not applicable	—	—	—	Organic compounds containing oxygen (but not fluorine and chlorine), with the 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: 56.6degC (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 385mg/kg (Agricultural Chemical Registration Data (1990)).
1 Acute toxicity (dermal)	Not classified	—	—	—	Based on the rat LD50 (dermal route) value of >2,000mg/kg, together with the absence of mortality (Agricultural Chemical Registration Data (2001)).
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 dermal study reported the LC50 value of >2.4mg/L (Agricultural Chemical Registration Data (1990)).
2 Skin corrosion / irritation	Not classified	—	—	—	Based on the evidence of slight effects with the maximum Draize score of ca. 1.0, which were fully recovered within 4 days, observed in rabbit skin irritation tests (Agricultural Chemical Registration Data (2001)). The substance is thus considered non-irritating.
3 Serious eye damage / eye irritation	Not classified	—	—	—	Based on the evidence of slight effects with the maximum Draize score of ca. 1.0, which resolved within 24 hours, observed in rabbit eye irritation tests (Agricultural Chemical Registration Data (1990)). The substance is thus considered non-irritating.
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 positive results in guinea pig skin sensitization tests employing the Maximization method (Agricultural Chemical Registration Data (2004)).
5 Germ cell mutagenicity	Not classified	—	—	—	Based on negative data in <i>in vitro</i> studies (reverse mutation tests and mouse lymphoma tests) and <i>mouse in vivo</i> micronucleus tests (Agricultural Chemical Registration Data (1990, 2003)).
6 Carcinogenicity	Not classified	—	—	—	There was no treatment-related increase in tumor incidence observed in 2-year (rats) and 18-month (mice) carcinogenicity studies (Agricultural Chemical Registration Data (1992)).
7 Toxic to reproduction	Not classified	—	—	—	Based on no evidence of adverse effects on parental reproduction and offspring development observed in mouse 2-generation reproduction studies and rabbit teratogenicity studies (Agricultural Chemical Registration Data (1990)).

8	Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	In single dose toxicity studies in animals, signs and symptoms of toxicity including "sedation," "hyperventilation," "piloerection," "anemic eyeball," "salivation," and "nasal secretion" were observed (Agricultural Chemical Registration Data (1990)). However, classification is not possible since no target organs were identified from these findings and the doses at which these effects were observed are not given.
9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	—	—	—	Classification not possible due to the insufficiency of data.
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 48 hours EC50=11ppb of the crustacea (<i>Daphnia magna</i>) (Agricultural Chemical Registration Data, 2003).
11 Hazardous to the aquatic environment (chronic)	Category 1	Environment	Warning	Very toxic to aquatic life with long lasting effects	Although acute toxicity is Category 1 and bio-accumulation is low (BCF=212(Agricultural Chemical Registration Data,)), since there was no rapidly degrading (BIOWIN()), it was classified into Category 1.