

GHS Classification

ID493

Poly(oxyethylene) octylphenyl ether

CAS 9036-19-5

Date Classified: Aug. 22, 2006 (Environmental Hazards: Mar. 31, 2006)

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 "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
3 Flammable aerosols	Not applicable	—	—	—	Not aerosol products
4 Oxidizing gases	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
5 Gases under pressure	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
6 Flammable liquids	Not classified (when 9 moles of ethylene oxide added)	—	—	—	The flash point is 296degC (open cup flash test) (when 9 moles of ethylene oxide added) (CERI Hazard Data (2001))
7 Flammable solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
8 Self-reactive substances and mixtures	Not applicable	—	—	—	Containing no chemical groups with explosive or self-reactive properties
9 Pyrophoric liquids	Classification not possible	—	—	—	No data available
10 Pyrophoric solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
11 Self-heating substances and mixtures	Classification not possible (when 9 moles of ethylene oxide added)	—	—	—	Test methods applicable to liquid substances are not available (when 9 moles of ethylene oxide added)
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 oxygen (but not fluorine and chlorine), with the oxygen bound to carbon and hydrogen (but not to other elements)
14 Oxidizing solids	Not applicable	—	—	—	Classified as "liquid" according to GHS definition (when 9 moles of ethylene oxide added)
15 Organic peroxides	Not applicable	—	—	—	Organic compounds containing no "-O-O-" structure
16 Corrosive to metals	Classification not possible	—	—	—	No data available

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 1,700mg/kg representing the lowest of the testing data, 4,190mg/kg (EO 9), 11,800mg/kg (EO 9) (CERI Hazard Data 2001-42 (2002)), 1,700mg/kg (EO 8-10) and >28,000mg/kg (EO 40) (CERI-NITE Hazard Assessment No.105 (2006)). (Memo) EO: the number of moles of ethylene oxide added. Note: Commercial products typically contains EO chain lengths ranging from 9 to 10 (CERI-NITE Hazard Assessment No.105 (2006)). The present substance is thus classified into Category 5 based on the LD50 value for EO 9 (4,190mg/kg).
1 Acute toxicity (dermal)	Classification not possible	—	—	—	No data available
1 Acute toxicity (inhalation: gas)	Not applicable	—	—	—	Due to the fact that the substance is "liquid" according to the GHS definition (EO 9 and EO40) and inhalation of its gas is not expected.
1 Acute toxicity (inhalation: mist)	Classification not possible	—	—	—	No data available
1 Acute toxicity (inhalation: dust, mist)	Classification not possible	—	—	—	No data available
2 Skin corrosion / irritation	Not classified	—	—	—	Based on the description in the report on epidemiological studies of human exposure (CERI-NITE Hazard Assessment No.105 (2006)): "OPE with average EO chain lengths of 1, 3, 5, 8-10, 12-13 (i.e., OPE1, OPE3, OPE5, OPE8-10, OPE12-13) caused no primary skin irritation." "OPE with EO chain lengths of 3 and longer showed no primary skin irritation." The materials are thus considered non skin irritants.
3 Serious eye damage / eye irritation	Category 2A	Exclamation mark	Warning	Causes serious eye irritation	Based on the description in the report on rabbit eye irritation tests (CERI Hazard Data 2001-42 (2002)): "Moderately irritating." Also based on the description in the report on rabbit eye irritation tests evaluated according to the Draize scheme (CERI-NITE Hazard Assessment No.105 (2006)): "OPE1 and OPE3 caused mild irritation, whereas OPE5, OPE6-8, OPE8-10 and OPE12-13 caused moderate irritation." Also based on the description in the report on eye irritation tests evaluated according to the Threshold scheme: "OPE1 and OPE3 showed mild irritation; OPE5, OPE8-10 and OPE12-13 showed moderate irritation." The materials are thus considered moderate eye irritants. (Memo) OPE: compound with the number of EO is n.
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: The materials are considered "non sensitizations" based on the results of skin sensitization tests on human volunteers (CERI-NITE Hazard Assessment No.105 (2006)): "EO chain length of 3 or longer: Negative." However, classification is not possible, with only one set of data showing "negative" available.
5 Germ cell mutagenicity	Classification not possible	—	—	—	Classification not possible due to the insufficiency of data (no data available on in vivo mutagenicity/genotoxicity tests)
6 Carcinogenicity	Classification not possible	—	—	—	No data available
7 Toxic to reproduction	Classification not possible	—	—	—	Insufficient data available
8 Specific target organs/systemic toxicity following single exposure	Classification not possible	—	—	—	No data available

9	Specific target organs/systemic toxicity following repeated exposure	Classification not possible	—	—	—	Insufficient data available
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 EC50=0.21mg/L of the algae (Selenastrum) (CERI/NITE Hazard Assessment Report (preliminary version), 2006).
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<31(Existing Chemical Safety Inspections Data.)), since there was no rapidly degrading (the decomposition by BOD, 22%(Existing Chemical Safety Inspections Data)), it was classified into Category 1.