GHS Classification

ID473 Di-n-heptyl phthalate

CAS 3648-21-3 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
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 224degC (c.c.) (ICSC (2004))
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	Classification not possible	−	−	−	No data available
10	Pyrophoric solids	Not applicable	−	−	−	Classified as "liquid" according to GHS definition
11	Self-heating substances and mixtures	Classification not possible	−	−	−	Test methods applicable to liquid substances are not available.
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
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)	Classification not possible	−	−	−	Insufficient data available
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 and inhalation of its gas is not expected.
1	Acute toxicity (inhalation:	Classification not possible	−	−	−	No data available
1	Acute toxicity (inhalation: dust, mist)	Classification not possible	−	−	−	No data available
2	Skin corrosion / irritation	Classification not possible	−	−	−	Insufficient data available
3	Serious eye damage / eye irritation	Classification not possible	−	−	−	Insufficient data available
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	Classification not possible	−	−	−	Based on the absence of data on multi-generation mutagenicity tests, germ/somatic cell mutagenicity tests in vivo and germ/somatic cell genotoxicity tests in vivo, and no positive data on mutagenicity tests in vitro (several indices), described in CERI Hazard Data 2001-35 (2002).
6	Carcinogenicity	Classification not possible	−	−	−	No data available
7	Toxic to reproduction	Category 2	Health hazard	Warning	Suspected of damaging fertility or the unborn child	Based on the evidence of increased embryonic or fetal mortality, along with the evidence of external malformation (exencephalia, eyelid opening, cleft palate, ectrodactylia, tail abnormalities, hematoma) and skeletal abnormalities (malformation of the skull/vertebra/ribs/limb bones, and fusion of dorsal vertebra and ribs) observed in mouse teratogenicity studies, described in CERI Hazard Data 2001-35 (2002) (though no data are available on parental toxicity).
8	Specific target organs/systemic toxicity following single exposure	Classification not possible	−	−	−	Insufficient 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 48 hours EC50=0.37mg/L of the crustacea (Daphnia magna) (MOE eco-toxicity tests of chemicals (1995) and others.).
11	Hazardous to the aquatic environment (chronic)	Not classified	-	-	-	Since there was rapidly degrading (it was hydrolyzed to phthalic acid (the decomposition by BOD: 85.2%) and to n-heptanol (CERI Hazard Data (2002))) and the bio-accumulation was low (BCF=16.7(Existing Chemical Safety Inspections Data)), it was claasified into Not classified.