# GHS Classification

## ID766 2-Cyclohexylbiphenyl

**CAS 10470-01-6** Date Classified: Jun. 20, 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 | – | – | – | There are no chemical groups associated with explosive properties present in the molecules. |
| 2 | Flammable gases | Not applicable | – | – | – | Liquid (GHS definition) |
| 3 | Flammable aerosols | Not applicable | – | – | – | Not aerosol products |
| 4 | Oxidizing gases | Not applicable | – | – | – | Liquid (GHS definition) |
| 5 | Gases under pressure | Not applicable | – | – | – | Liquid (GHS definition) |
| 6 | Flammable liquids | Not classified | – | – | – | Flash point: 157degC (c.c) (ACGIH, 2001) |
| 7 | Flammable solids | Not applicable | – | – | – | Liquid (GHS definition) |
| 8 | Self-reactive substances and mixtures | Not applicable | – | – | – | There are no chemical groups associated with explosive or self-reactive properties present in the molecule. |
| 9 | Pyrophoric liquids | Not classified | – | – | – | Flash point: 374 degC(ICSC (1995); ACGIH (2001)) (>70 degC) |
| 10 | Pyrophoric solids | Not applicable | – | – | – | Liquid (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 | – | – | – | The chemical structure of the substance does not contain metals or metaloids(B, Si, P, Ge, As, Se, Sn, Sb, Te, Bi, Po, At). |
| 13 | Oxidizing liquids | Not applicable | – | – | – | Organic compounds containing no oxygen, fluorine and chlorine. |
| 14 | Oxidizing solids | Not applicable | – | – | – | Liquid (GHS definition) |
| 15 | Organic peroxides | Not applicable | – | – | – | There are no chemical groups associated with peroxide present in the molecule. |
| 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) | Not classified | – | – | – | Based on the lower value LD50=10200 mg/kg (ACGIH (2001)) among two data of rat oral studies, it was classified into outside of Category. |
| 1 | Acute toxicity (dermal) | Not classified | – | – | – | Based on the minimal lethal dose (24hr, occluded) of rabbit dermal test being 6800mg/kg (ACGIH (2001)), it was classified as out of Category. |
| 1 | Acute toxicity (inhalation: gas) | Not applicable | – | – | – | Liquid (GHS definition) |
| 1 | Acute toxicity (inhalation: vapour) | Classification not possible | – | – | – | No data available |
| 1 | Acute toxicity (inhalation: dust, mist) | Classification not possible | – | – | – | Insufficient data available |
| 2 | Skin corrosion / irritation | Category 2 | Exclamation mark | Warning | Causes skin irritation | Based on the statement of "moderately irritating" on rabbit test (ACGIH (2001), IUCLID (2000)), it was classified as Category 2. |
| 3 | Serious eye damage / eye irritation | Category 2B | – | Warning | Causes eye irritation | There is the statement that "Temporary eye irritation", but in the case that liquid bounds into the eyes in humans, the extent is unknown (ACGIH (2001), and furthermore that there was no irritation in the rabbit test (ACGIH (2001), IUCLID (2000). So it was classified into Category 2B. |
| 4 | Respiratory/skin sensitization | Respiratory sensitization: Classification not possible; Skin sensitization: Not | (Respiratory sensitization)–; (Skin sensitization)– | (Respiratory sensitization)–; (Skin sensitization)– | (Respiratory sensitization)–; (Skin sensitization)– | [Skin sensitization] Based on reports that there is no skin sensitization in the patch tests of 50 [ ACGIH (2001), IUCLID (2000)] and that there is no skin sensitization among 47 laborers according to the epidemiological study(ACGIH (2001)), it was put outside of the Category.<br>[Respiratory sensitization] No data |
| 5 | Germ cell mutagenicity | Not classified | – | – | – | Based on the result (ACGIH (2001)) that it had no mutagenicity in the chromosomal aberration test using the in vivo rat marrow cell, which was an in vivo mutagenicity test using the somatic cells. So we classified it as Out Of Category. |
| 6 | Carcinogenicity | Classification not possible | – | – | – | Insufficient data available |
| 7 | Toxic to reproduction | Category 2 | Health hazard | Warning | Suspected of damaging fertility or the undorn child | It was classified into category 2 based on that in teratogenicity studies in rats with the dose causing maternal toxicity (the increase in death, weight reduction), the increase of embryo absortion and rate of post implantational embryo loss, fetal death and teratogenicity (skeletal malformation), etc. are observed(ACGIH (2001), IUCLID (2000)). |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | Specific target organs/systemic toxicity following single exposure | Category 3 (respiratory tract irritation) | Exclamation mark | Warning | May cause respiratory irritation or may cause drowsiness and dizziness (respiratory tract irritation) | Based on respiratory irritation being reported by inhalation (ACGIH (2001)), it classified into Category 3 (respiratory irritation) according to rats and humans. |
| 9 | Specific target organs/systemic toxicity following repeated exposure | Category 2 (liver, kidneys, brain) | Health hazard | Warning | May cause damage to organs (liver, kidneys, brain) through prolonged or repeated exposure | In the oral administration examination with a rat and a rabbit, the diffuse degeneration and necrosis of liver, degeneration and a necrosis of a kidney tubular epithelium cell, and cerebral degeneration were observed within the range of exposure 1–10 mg/kg bw (rat) and 4–10 mg/kg bw (rat) (IUCLID (2000)). |
| 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) | Classification not possible | – | – | – | No data available |
| 11 | Hazardous to the aquatic environment (chronic) | Classification not possible | – | – | – | No data available. |