

## GHS Classification

**ID354**

**CAS 25068-38-6**

### Physical Hazards

**Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (liquid); Bisphenol A type epoxy resin (liquid)**

Date Classified: Apr. 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 "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   | Classification not possible | -      | -           | -                | No data available   |
| 7 Flammable solids  | Not applicable              | -      | -           | -                | Classified as "liquid" according to GHS definition  |
| 8 Self-reactive substances and mixtures                                       | Classification not possible | -      | -           | -                | Classification not possible due to lack of data, though containing a distorted ring structure.  |
| 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)  | Not classified   | -                | -           | -                                | Based on the testing data of rat LD50 (oral route) of 11,400mg/kg representing the lowest fixed value of the testing data, >1,000mg/kg, 11,400mg/kg, and 13,600mg/kg (CERI Hazard Data 2001-36 (2002)).   |
| 1 Acute toxicity (dermal)  | Classification not possible  | -                | -           | -                                | No definitive value available, although the substance can be classified as Category 4 or above, based on the rabbit LD50 (dermal route) of >1,600mg/kg (CERI Hazard Data 2001-36 (2002)).   |
| 1 Acute toxicity (inhalation: gas)                                     | Not applicable   | -                | -           | -                                | Due to the fact that the substance is "liquid" (20degC, 1atm) 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   |
| 2 Skin corrosion / irritation  | Category 2   | Exclamation mark | Warning     | Causes skin irritation           | Based on the description in the report on rabbit primary skin irritation tests (CERI Hazard Data 2001-36 (2002), DFGOT vol.19 (2003)): The substance does not cause or causes moderate irritation to the skin, though the results of 4-hour application are not available. The substance is considered "irritating."  |
| 3 Serious eye damage / eye irritation                                  | Category 2B  | -                | Warning     | Causes eye irritation            | Based on the description in the report on rabbit eye irritation tests (CERI Hazard Data 2001-36 (2002)): The substance does not cause or causes moderate irritation to the eyes. The substance is considered "mildly irritating."   |
| 4 Respiratory/skin sensitization                                       | respiratory sensitization: Classification not possible<br>Skin sensitization: Category 1 | Exclamation mark | Warning     | May cause allergic skin reaction | Respiratory sensitization: No data available<br>Skin sensitization: based on the report on human cases and tests on human volunteers (CERI Hazard Data 2001-36 (2002), DFGOT vol.19 (2003)), the results of guinea pig skin sensitization tests and the classification by the Japanese Society of Occupational Allergy (category: skin sensitizing substance). The substance causes skin sensitization. |
| 5 Germ cell mutagenicity   | Not classified   | -                | -           | -                                | Based on the negative data on multi-generation mutagenicity tests (dominant lethal tests), germ cell mutagenicity tests in vivo (chromosome aberration tests), and somatic cell mutagenicity tests in vivo (micronucleus tests and chromosome aberration tests), described in DFGOT vol. 19   |
| 6 Carcinogenicity  | Classification not possible  | -                | -           | -                                | Cannot be classified due to lack of existing classification.  |
| 7 Toxic to reproduction  | Not classified   | -                | -           | -                                | Based on the description in the report on reproductive toxicity and teratogenicity tests (PATTY (4th, 2000), DFGOT vol.19 (2003)): No reproductive and developmental toxicity is observed at dosing levels toxic to parental animals.   |
| 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                           | Since a potential that relevant toxicity was indicated in the water solubility (0.041mg/L(CERI/NITE Hazard Assessment Report (preliminary version) (2006) and others)) of this substance could not be denied from 48 hours EC50=1.7mg/L of the crustacea (Daphnia magna) (CERI/NITE Hazard Assessment Report (preliminary version) (2006) and others), it was classified into Category 1. |
| 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<=42(Existing Chemical Safety Inspections Data. )), since there was no rapidly degrading (the decomposition by BOD: 0%(Existing Chemical Safety Inspections Data)), it was classified into Category 1.  |