# 2,2'-bioxirane

### IDENTIFICATION NUMBERS

- **CAS:** 1464-53-5
- **EC/EINECS:** 215-979-1

### MORE INFORMATION

- **Molecular Formula:** C4H6O2
- **Synonyms:** 1,2,3,4-DIEPOXIBUTANO

## CLASSIFICATION AND LABELLING (Regulation 1272/2008)

**Symbols**



**GHS05**

Corrosive to metals



**GHS06**

Acute toxicity (oral, dermal, inhalation)



**GHS08**

Respiratory sensitisation

**Signal word:** **Danger**

**H Phrases**

**H350** : May cause cancer

Carc. (Cat. 1B) : Carcinogenicity

**H340** : May cause genetic defects

Muta. (Cat. 1B) : Germ cell mutagenicity

**H330** : Fatal if inhaled

Acute Tox. (Cat. 2 *) : Acute toxicity

**H311** : Toxic in contact with skin

Acute Tox. (Cat. 3 *) : Acute toxicity

**H301** : Toxic if swallowed

Acute Tox. (Cat. 3 *) : Acute toxicity

**H314** : Causes severe skin burns and eye damage

Skin Corr. (Cat. 1B) : Skin corrosion/irritation

## Specific health risks

### Carcinogens (other sources)

Substances classified as carcinogens or mutagens Category 3 under the Dangerous Preparations Directive criteria (pre-CLP). Substances with limited evidence or indications of carcinogenicity or mutagenicity.

| CATEGORY | SOURCE |
| --- | --- |
| CP, N-2 | CP65, NTP |

### Prohibited for breastfeeding workers

Chemical agents whose exposure is prohibited for breastfeeding workers under Royal Decree 298/2009 and Directive 92/85/EEC. Includes substances that may be transmitted through breast milk or that negatively affect milk production.

### Prohibited for pregnant workers

Chemical agents whose exposure is prohibited for pregnant workers under Royal Decree 298/2009 (amendment of RD 39/1997) and Directive 92/85/EEC. Includes substances with proven risk of foetal harm, miscarriage or pregnancy complications.

### Carcinogens and mutagens (Regulation 1272/2008)

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

## Restriction/prohibition regulations

### Restricted substances under REACH

Substances listed in Annex XVII of the REACH Regulation (EC) No 1907/2006, subject to restrictions on their manufacture, placing on the market or use. Restrictions may be total or partial, limiting specific applications, maximum concentrations or user groups.

**NOTES**

Limitations: Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30: 1. Shall not be placed on the market, or used, - as substances, - as constituents of other substances, or, - in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: - either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, - the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in Part 3 of Annex VI to Regulation (EC) No 1272/2008. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows: ‘Restricted to professional users’. 2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/ EC; (b) cosmetic products as defined by Directive 76/ 768/EEC; (c) the following fuels and oil products: - motor fuels which are covered by Directive 98/70/EC, - mineral oil products intended for use as fuel in mobile or fixed combustion plants, - fuels sold in closed systems (e.g. liquid gas bottles); (d) artists’ paints covered by Directive 1999/45/ EC; (e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date. Source: Regulation 1907/2006 (REACH). Annex XVII

### Major accident hazards (Seveso)

Hazardous substances listed in Annex I of the Seveso III Directive (Directive 2012/18/EU), transposed in Spain by Royal Decree 840/2015. Their presence in industrial establishments in quantities equal to or above established thresholds triggers obligations to implement major accident risk control measures.