# Benzenamine, 4,4'-methylenebis-, dihydrochloride@4,4'-methylenedianilinium dichloride

**Name (English): Benzenamine, 4,4'-methylenebis-, dihydrochloride@4,4'-methylenedianilinium dichloride**

## IDENTIFICATION NUMBERS

- **CAS:** 13552-44-8
- **EC/EINECS:** 236-934-2

## MORE INFORMATION

- **Molecular Formula:** C13-H14-N2 .2 Cl-H
- **Synonyms:** DIHIDROCLORURO DE 4,4'-METILENODIANILINA, 4,4´-METILEN-bis-DIHIDROCLORURO DE BENCENAMINA, DIHIDROCLORURO DE 4,4´-METILENDIANILINA

⚠ **Black list — Substances particularly hazardous to the environment or health**

## CLASSIFICATION AND LABELLING (Regulation 1272/2008)

### Symbols



**GHS05**

Corrosive to metals



**GHS06**

Acute toxicity (oral, dermal, inhalation)



**GHS08**

Respiratory sensitisation



**GHS09**

Hazardous to the aquatic environment

**Signal word: Danger**

### H Phrases

**H351** : Suspected of causing cancer

Carc. (Cat. 2) : Carcinogenicity

**H341** : Suspected of causing genetic defects

Muta. (Cat. 2) : Germ cell mutagenicity

**H372** : Causes damage to organs through prolonged or repeated exposure

STOT RE (Cat. 1) : Specific target organ toxicity - repeated exposure

**H331** : Toxic if inhaled

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

**H311** : Toxic in contact with skin

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

**H301** : Toxic if swallowed

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

**H318** : Causes serious eye damage

Eye Dam. (Cat. 1) : Serious eye damage/eye irritation

**H317** : May cause an allergic skin reaction

Skin Sens. (Cat. 1) : Respiratory/skin sensitization

**H400** : Very toxic to aquatic life

Aquatic Acute (Cat. 1) : Hazardous to the aquatic environment

### Notes

- R.1272-Note A

### Labelling

| Concentration | Labelling |
|---|---|
| C = 25 %: | T, N; R23/24/25-40-41-43-48/ 23/24/25-50-68 |
| 10 % = C < 25 %: | T; R20/21/22-40-41-43-48/23/24/25-68 |
| 1% = C < 10 %: | T; R20/21/22-40-43-48/ 23/24/25-68 |
| 0,2 % = C < 1 %: | Xn; R48/20/21/22 |
| | * |
| C >= 1 % | STOT repe., 1; H372 |
| 0,2 % <= C < 1 % | STOT repe., 2; H373 |

## 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 |
| --- | --- |
| N-2, CP | NTP, CP65 |

### Endocrine disruptors

Substances with endocrine disrupting activity

| DISRUPTOR LEVEL |
| --- |
| NS |

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

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

### Sensitisers

Substances with skin or respiratory sensitisation potential

## Specific environmental risks

### Atmospheric emissions

Substances subject to atmospheric emission limitations under the Industrial Emissions Directive (2010/75/EU) and its Spanish transposition. Includes pollutants regulated in industrial installation emission permits and best available technique reference documents (BAT/BREF).

## Restriction/prohibition regulations

### 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.