bis(2-chloroethyl) ether

IDENTIFICATION NUMBERS

- **CAS:** 111-44-4
- **EC/EINECS:** 203-870-1
- **International Chemical Safety Card (ICSC):** 0417

MORE INFORMATION

- **Molecular Formula:** C4H8Cl2O
- **Synonyms:** bis-(2-cloroetil)eter, bis(2-cloroetil)eter, dicloroetil eter, eter dicloroetilico, eter 2,2'-dicloroetilico

USES

pesticide, solvent

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS06

Acute toxicity (oral, dermal, inhalation)



GHS08

Respiratory sensitisation

Signal word: **Danger**

H Phrases

H351 : Suspected of causing cancer

Carc. (Cat. 2) : Carcinogenicity

H330 : Fatal if inhaled

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

H310 : Fatal in contact with skin

Acute Tox. (Cat. 1) : Acute toxicity

H300 : Fatal if swallowed

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

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

CP

SOURCE

CP65

According to IARC

Substances classified as carcinogens or mutagens Category 2 under the CLP Regulation (GHS), bearing H351 and/or H341 phrases. These are substances suspected of causing cancer or heritable genetic mutations in humans.

IARC GROUP

Grupo 3

IARC VOLUME

(Vol. 9, SUPL. 7, Vol. 71; 1999)

Occupational Exposure Limits (OEL)

Daily exposure limit values (VLA-ED) published by the Spanish National Institute of Safety and Health at Work (INSST). They represent the average concentration of a chemical agent in the worker's breathing zone, measured or calculated in a time-weighted manner for an 8-hour daily working period. (https://www.insst.es/valores-limites-de-exposicion)

OCCUPATIONAL EXPOSURE LIMITS

State / Form	TWA (ppm)	TWA (mg/m³)	STEL (ppm)	STEL (mg/m³)	Notes
—	5	30	10	60	vía dérmica

Carcinogens and mutagens (Regulation 1272/2008)

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

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.