butane

IDENTIFICATION NUMBERS

- **CAS:** 106-97-8
- **EC/EINECS:** 203-448-7
- **International Chemical Safety Card (ICSC):** 0232

MORE INFORMATION

- **Molecular Formula:** C4H10
- **Synonyms:** gas combustible, n-butano

USES

pesticide, solvent, fuel

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS02

Flammable gases



GHS04

Gases under pressure

Signal word: **Danger**

H Phrases

H???

Gas a pres.,

H220 : Extremely flammable gas

Flam. Gas (Cat. 1) : Flammable gas

Nota C.Nota U.

Notes

- R.1272-Note C
- R.1272-Note U

Specific health risks

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
—	1000	—	—	—	—

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).

Volatile organic compounds

Volatile Organic Compounds (VOCs) regulated by Directive 1999/13/EC on the limitation of VOC emissions from certain activities, and by Royal Decrees 117/2003 and 227/2006. Substances contributing to tropospheric ozone formation that are subject to emission limits in industrial activities.

Environmental regulations

LPCIC (EPER)

Priority substances and specific pollutants within the EU water policy framework, established by the Water Framework Directive (2000/60/EC) and the Priority Substances Directive (2008/105/EC and amendments). Substances posing significant risk to European surface waters and subject to Environmental Quality Standards (EQS).

EPER WATER

EPER AIR

1

EPER Air

Substances from List 2 of Annex III of the IPPC Directive (integrated into the Industrial Emissions Directive 2010/75/EU). Pollutants that may affect surface and groundwater bodies and must be considered in the integrated environmental authorisation of industrial installations.

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.