tert-butyl methyl ether

IDENTIFICATION NUMBERS

- **CAS:** 1634-04-4
- **EC/EINECS:** 216-653-1
- **International Chemical Safety Card (ICSC):** 1164

MORE INFORMATION

- **Molecular Formula:** C5H12O
- **Synonyms:** MTBE, 2-METOXI-2-METILPROPANO, ETER METIL-ter-BUTILICO, METILTERBUTIL ETER, METIL tert-BUTIL ETER, METIL t-BUTIL ETER, METIL terc-BUTIL ETER

USES

solvent

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS02

Flammable gases



GHS07

Acute toxicity (oral, dermal, inhalation

Signal word: **Danger**

H Phrases

H225 : Highly flammable liquid and vapour

Flam. Liq. (Cat. 2) : Flammable liquid

H315 : Causes skin irritation

Skin Irrit. (Cat. 2) : Skin corrosion/irritation

Specific health risks

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. 73; 1999)

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
G-A3

SOURCE
ACGIH

Endocrine disruptors

Substances with endocrine disrupting activity

DISRUPTOR LEVEL
UE1

Neurotoxic substances

Substances with neurotoxic effects

NEUROTOXIC EFFECT
INESPECÍFICO

LEVEL
1

SOURCE
21

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
—	50	183,5	100	367	VLI

Specific environmental risks

Hazardous water substances (Germany)

Substances classified with chronic aquatic toxicity under the CLP Regulation (H410–H413 phrases, Aquatic Chronic categories 1 to 4). They pose a long-term hazard to aquatic organisms, even at low concentrations and through prolonged exposure.

MMA CLASSIFICATION

1

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 SOIL

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

Substances under CoRAP evaluation

Substances included in the Community Rolling Action Plan (CoRAP) of the REACH Regulation. These are substances selected for evaluation by EU Member States due to indications of risk to human health or the environment, with the aim of clarifying whether regulatory action is warranted.

YEAR	MEMBER STATE
2014	France

INITIAL GROUNDS FOR CONCERN

Human health/Potential endocrine disruptor;

Exposure/Wide dispersive use, aggregated tonnage

Substances under PACT evaluation

Substances under active regulatory monitoring through ECHA's PACT (Public Activities Coordination Tool). Allows tracking which regulatory authorities are examining a substance and what potential regulatory actions are being considered (restriction, SVHC identification, harmonised classification, etc.).

MEMBER STATE	ACTIVITY
France	Hazard assessment
LAST UPDATE	**SCOPE**
2015-04-01T00:00:00	ED

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.