toluene

IDENTIFICATION NUMBERS

- **CAS:** 108-88-3
- **EC/EINECS:** 203-625-9
- **International Chemical Safety Card (ICSC):** 0078

MORE INFORMATION

- **Molecular Formula:** C7H8
- **Synonyms:** Metilbenceno, Fenilmetanol, Toluol

USES

degreaser, solvent, paint, cleaner, additive

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

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS02

Flammable gases



GHS07

Acute toxicity (oral, dermal, inhalation



GHS08

Respiratory sensitisation

Signal word: **Danger**

H Phrases

H225 : Highly flammable liquid and vapour

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

H361d : Suspected of damaging the unborn child.

Repr. (Cat. 2) : Reproductive toxicity

H304 : May be fatal if swallowed and enters airways

Asp. Tox. (Cat. 1) : Aspiration hazard

H315 : Causes skin irritation

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

H336 : May cause drowsiness or dizziness

STOT SE (Cat. 3) : Specific target organ toxicity - single exposure

H373 : May cause damage to organs through prolonged or repeated exposure

STOT RE (Cat. 2 *) : Specific target organ toxicity - repeated exposure

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	IARC VOLUME
Grupo 3	(VOL. 47, VOL. 71; 1999)

Neurotoxic substances

Substances with neurotoxic effects

NEUROTOXIC EFFECT	LEVEL
SNC/ OTOTÓXICO	1

SOURCE

14, 24, IRSST

Ototoxic substances

Substances with ototoxic effects

NEUROTOXIC EFFECT	SOURCE
SNC/ OTOTÓXICO	14, 24, IRSST

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

VLA-ED50 ppm192 mg/m3VLA-EC100 ppm384 mg/m3

Biological Exposure Indices (BEI)

Biological limit values (VLB) published by the Spanish National Institute of Safety and Health at Work (INSST). Reference values for assessing the risk of chemical agents by measuring them or their metabolites in biological matrices (blood, urine, exhaled air) of exposed workers.

BIOLOGICAL EXPOSURE INDICES

IB: o-Cresol en Orina 0,6 mg/g creatinina Notas: FIB: Tolueno en Sangre0,05 mg/IB: Tolueno en orina0,08 mg/l

Reproductive toxicants

Substances classified as toxic for reproduction 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).

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.

Soil contaminants

Substances identified as soil contaminants under Spanish and European environmental regulations. Includes substances capable of persisting in soil, bioaccumulating in the terrestrial food chain, and affecting soil ecosystems and groundwater.

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
true	false

EPER SOIL

true

EPER Water

Substances from List 1 of Annex III of the IPPC Directive (integrated into the Industrial Emissions Directive 2010/75/EU). Atmospheric pollutants —including SO_2, NOx, heavy metals and organic compounds— that must be taken into account when setting emission limit values for IPPC installations.

EPER Soil

Substances from List 3 of Annex III of the IPPC Directive (integrated into the Industrial Emissions Directive 2010/75/EU). Substances present in waste generated by IPPC installations that must be controlled and minimised within the framework of best available techniques.

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: Shall not be placed on the market, or used, as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight where the substance or mixture is used in adhesives or spray paints intended for supply to the general public. Source: Regulation 1907/2006 (REACH). Annex XVII

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
2012	Finland

INITIAL GROUNDS FOR CONCERN

Human health/CMR and systemic toxicity; Exposure/Wide dispersive use, consumer use, high 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
Netherlands	RMOA
LAST UPDATE	**SCOPE**
2017-11-09T00:00:00	CMR

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.