4-methylpentan-2-one

IDENTIFICATION NUMBERS

- **CAS:** 108-10-1
- **EC/EINECS:** 203-550-1
- **International Chemical Safety Card (ICSC):** 0511

MORE INFORMATION

- **Molecular Formula:** C6H12O
- **Synonyms:** metilisobutilcetona, metil isobutil cetona, 4-metil-2-pentanona, hexona

USES

solvent

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

H351 : Suspected of causing cancer

Carc. (Cat. 2) : Carcinogenicity

H332 : Harmful if inhaled

Acute Tox. (Cat. 4) : Acute toxicity

H336 : May cause drowsiness or dizziness

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

H319 : Causes serious eye irritation

Eye Irrit. (Cat. 2) : Serious eye damage/eye irritation

EUH066

Labelling

Concentration	Labelling
ATE=11 mg/l	Inhalation (vapours)

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

G-A3, CP

SOURCE

ACGIH, CP65

Neurotoxic substances

Substances with neurotoxic effects

LEVEL

1

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 2B

IARC VOLUME

101; 2013

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: Metilisobutilcetona en orina1 mg/l

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-ED20 ppm83 mg/m3VLA-EC50 ppm208 mg/m3

Carcinogens and mutagens (Regulation 1272/2008)

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

Specific environmental risks

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
false	true

EPER SOIL

false

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.

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.).