formaldehyde

IDENTIFICATION NUMBERS

- **CAS:** 50-00-0
- **EC/EINECS:** 200-001-8
- **International Chemical Safety Card (ICSC):** 0275@0695

MORE INFORMATION

- **Molecular Formula:** CH2O
- **Synonyms:** formaldehido (concentracion 90 por 100), formaldehido ...%, formol

USES

adhesive, degreaser, disinfectant, solvent, lubricant, cooling agent, cleaner, waterproofing agent, preservative, biocide, Wood preservative, fungicide, hardener, pesticide, microbiocidal

CLASSIFICATION AND LABELLING (Regulation 1272/2008)

Symbols



GHS05

Corrosive to metals



GHS06

Acute toxicity (oral, dermal, inhalation)



GHS08

Respiratory sensitisation

Signal word: **Danger**

H Phrases

H341 : Suspected of causing genetic defects

Muta. (Cat. 2) : Germ cell mutagenicity

H301 : Toxic if swallowed

Acute Tox. (Cat. 3*) : Acute toxicity

H311 : Toxic in contact with skin

Acute Tox. (Cat. 3*) : Acute toxicity

H331 : Toxic if inhaled

Acute Tox. (Cat. 3*) : Acute toxicity

H314 : Causes severe skin burns and eye damage

Skin Corr. (Cat. 1B) : Skin corrosion/irritation

H317 : May cause an allergic skin reaction

Skin Sens. (Cat. 1) : Respiratory/skin sensitization

H350 : May cause cancer

Carc. (Cat. 1B) : Carcinogenicity

Nota B,.Nota D.

Notes

- R.1272-Note B
- R.1272-Note D

Labelling

Concentration	Labelling
C >= 25 % X; R20/21/22	T; R23/24/25
C >= 25 %	C; R34
5 % <= C < 25 %	Xi; R36/37/38
C >= 0,2 %	R43
C >= 25 %	Corr. cut., 1B; H314
	Irrit. cut., 2; H315
5 % <= C < 25 %	
	Irrit. oc., 2; H319
5 % <= C < 25 %	
C >= 5 %	STOT única, 3; H335

Concentration	Labelling
C >= 0,2 %	Sens. cut., 1; H317

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 1

IARC VOLUME

(VOL. 88, 100F; 2012)

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-A2, N-1, CP

SOURCE

ACGIH, NTP, CP65

Neurotoxic substances

Substances with neurotoxic effects

LEVEL

2

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-ED0,37 mg/m30,3 ppmVLA-EC0,74 mg/m30,6 ppmLa sustancia puede provocar sensibilización dérmica.

Carcinogens and mutagens (Regulation 1272/2008)

Substances classified as carcinogenic or mutagenic under Regulation 1272/2008

Sensitisers

Substances with skin or respiratory sensitisation potential

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
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

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

1. Shall not be placed on the market in articles, after 6 August 2026, if, under the test conditions specified in Appendix 14, the concentration of formaldehyde released from those articles exceeds: (a) 0,062 mg/m3 for furniture and wood-based articles; (b) 0,080 mg/m3 for articles other than furniture and wood-based articles. The first subparagraph shall not apply to: (a) articles in which formaldehyde or formaldehyde releasing substances are exclusively naturally present in the materials from which the articles are produced; (b) articles that are exclusively for outdoor use under foreseeable conditions; (c) articles in constructions, that are exclusively used outside the building shell and vapour barrier and that do not emit formaldehyde into indoor air; (d) articles exclusively for industrial or professional use unless formaldehyde released from them leads to exposure of the general public under foreseeable conditions of use; (e) articles for which the restriction laid down in entry 72 applies; (f) articles that are biocidal products within the scope of Regulation (EU) No 528/2012 of the European Parliament and of the Council1; (g) devices within the scope of Regulation (EU) 2017/745; (h) personal protective equipment within the scope of Regulation (EU) 2016/425; (i) articles intended to come into contact directly or indirectly with food within the scope of Regulation (EC) No 1935/2004; (j) second-hand articles. 2. Shall not be placed on the market in road vehicles after 6 August 2027 if, under the test conditions specified in Appendix 14, the concentration of formaldehyde in the interior of those vehicles exceeds 0,062 mg/m3. The first subparagraph shall not apply to: (a) road vehicles exclusively for industrial or professional use unless the concentration of formaldehyde in the interior of those vehicles leads to exposure of the general public under foreseeable conditions of use; (b) second-hand vehicles.

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
2013	France/the Netherlands

INITIAL GROUNDS FOR CONCERN

Human health/CMR; Exposure/Wide dispersive use; Worker exposure; 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	RMOA
LAST UPDATE	**SCOPE**
2016-08-04T00:00:00	CMR

Banned biocides

Active substances whose approval for biocidal use has been denied or not renewed under Regulation (EU) No 528/2012 on biocidal products. They may not be placed on the market or used as active substances in biocidal products in the European Union.

SOURCE	EXEMPTIONS
Decisión 2008/681/CE	2009/08/21

EXEMPTIONS

Preservatives for coolants and treatment methods, mold products

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.

REACH sensitisers

Substances identified as respiratory or skin sensitisers under the REACH Regulation. Includes substances that, without necessarily having a CLP classification, have been assessed by ECHA as potentially allergenic in occupational exposure contexts.