

LEAD REGULATION IN THE EU (Status: March 2024)

Risks associated with the usage of lead

- Lead has been classified as **toxic to reproduction** (most serious category 1A according to the CLP regulation) since March 1, 2018 (limit values: massive lead from 0.3%, lead powder from 0.03%).
- According to industry's self-assessment, lead is regarded as **target organ toxic** (STOT RE1, limit values: massive lead from 10%, lead powder from 0.5%).
- On June 27, 2018 lead has been listed as SVHC ("**substance of very high concern**") and, as a consequence, could become subject to authorization in accordance with the REACH regulation.
- In January 2024, lead has been classified as **environmentally hazardous**.

NEWS: EU classifies lead as environmentally hazardous

On January 5, 2024 the "Delegated Regulation 2024/197" for adaptation of the CLP regulation, compiled by the Competent Authorities for REACH and CLP (CARACAL), was approved and published. This Delegated Regulation classifies lead as **environmentally hazardous** as follows:

- Massive lead ($\varnothing \geq 1$ mm): **Chronically hazardous to water** (Aquatic Chronic 1), M-factor (measure for the danger level) 10
- Lead powder ($\varnothing < 1$ mm): **Chronically hazardous to water** (Aquatic Chronic 1, M-factor 100) plus additionally **acutely hazardous to water** (Aquatic Acute 1, M-factor 10)

With this amendment of the CLP regulation, partly extensive restrictions on miscellaneous areas of law are expected to become effective, depending on local implementation rules, regulations and directives:

- **Industrial estates and major-accidents law** (Seveso-III-Directive): e.g. classification of a site as „hazardous incidents plant“, with basic or extended range of obligations upon exceeding certain storage amounts
- **Transportation law** (ADR Regulation): e.g. restrictions for handling and shipping
- **Water law** (classification in water hazard classes): e.g. restrictions for outdoor storage and handling, requirements for retention of extinguishing water

With the end of the transitional period and the **entry into force of Delegated Regulation 2024/197 on September 1, 2025**, the industrial use of lead is anticipated to become considerably more difficult in light of the expected restrictions.

Recommendation:

All potentially concerned businesses are recommended to **identify and assess the impact of the Delegated Regulation 2024/197 on their particular situation**, so as to be able to react within the transitional period. In particular, it should be determined which new regulations for lead containing substances and mixtures, waste and/or products are relevant and from which lead concentration they are applicable, considering the locally applicable legislation.

Tightening of the occupational safety regulations

As a result of the classification of lead as toxic to reproduction, inter alia, further tightening of the existing regulations regarding lead in the area of occupational health and safety is planned by the EU. According to a coordinated proposal by Commission, Council and Parliament from December 2023, which is awaiting approval, the following limit values shall be reduced and become binding EU-wide latest by end of 2028:

- **Biological limit value** (blood lead limit value) **from 700 down to 150 µg / l** (in Germany already in effect)
- Limit value for **occupational exposition to lead from 0.15 down to 0.03 mg / m³**

EASECAST® – The road to a lead-free future

- EASECAST® are lead-free copper alloys: CC471K (replacement for Rg7) und CC472K (replacement for Gbz12) according to DIN EN 1982:2023 (draft standard)
- the basic structure of the previous materials CC493K and CC483K remains the unchanged
- lead-free alloys protect human health and the environment
- lead replacement elements have a low melting loss

Detailed information can be found [here](#).

SCIP 2023

New chemicals law:

- SCIP-reporting of products with lead content required upon placing on the market
- fines possible in case of non-observance

Environmental hazard 2024

Classification of massive lead as environmentally hazardous, expected restrictions e.g. in the areas of:

- major-accidents law (Seveso)
- transportation law (ADR)
- water law

Transitional period until September 01, 2025.

End-of-Life Vehicles (ELV) Directive Revision 2025

- lead in copper alloys currently up to 4% permitted
- from today's perspective, tightening unlikely

Drinking water 2032

- lead-free, transitional period until 2034
- new product series possibly need to be lead-free even before the deadline

EU LEAD REGULATION

RoHS Extension of the exception?

- RoHS-limit of lead <0,1% in components of certain electrical and electronic devices
- exception for copper alloys ($\leq 4\%$) theoretically expired, EU-decision regarding extension is pending

REACH Authorisation of lead pending

- probably revision of the REACH regulation first
- then possibly inclusion of lead in the authorisation list

Occupational safety 2028

- introduction of EU-wide limit values:
 - blood lead limit 150 $\mu\text{g/l}$, for women 45 $\mu\text{g/l}$
 - occupational exposition 0.03 mg/m^3

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