



POSITION PAPER

ECHA proposal to place Lead metal on REACH authorisation list (Annex XIV) – CEIR contribution

Brussels, 28 April 2022

About CEIR

The European Association for the Taps and Valves Industry (CEIR) was formed in 1959 as the European federation of national manufacturer associations. CEIR gathers the major European manufacturers in the field of valves and fittings. CEIR is composed of 12 national associations and 13 European corporate members: CEIR represents over 300 taps and valves manufacturers. CEIR supports the principles of a free economy and private enterprise in Europe as well as on a global basis. CEIR represents the common economic, technical, and scientific interests of the European valve industries towards international authorities and in economic and commercial circles.

Executive summary

Lead in its metallic form is proposed for inclusion on the list of substances subject to authorization (Annex XIV of the REACH Regulation). CEIR would like to highlight several important points that should be taken into consideration during the evaluation of this proposal:

- The products placed on the market by the industries CEIR represents are already covered by various binding regulations to address the chemical and environmental risks associated with the presence of lead in its metallic form. There is a risk that they will be double regulated if Lead is placed under authorization regime
- These existing regulations will automatically reduce the amount of lead placed on the market through these products,
- There are currently no technically and economically acceptable substitute for lead in brass,
- The ban/restriction on lead would cause:
 - o not only an obstacle to the proper recycling of our products,
 - o also, an increase in raw material costs (need for new copper to dilute lead),
 - o to increase the environmental footprint of our products, and therefore ultimately penalize the manufacturers we represent (considering the future SPI implementation).
- Such a decision would force relocations outside the EU and job losses inside the EU

CEIR therefore requests that Lead in its metallic form not be included in Annex XIV of the REACH Regulation.

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Prevention of Workers and consumer exposure

The products we put on the market are already highly regulated and the chemical risk due to the presence of lead is under tight control, both for the worker and for the consumer.

Protection of workers

Lead and its compounds are, in accordance with Article 2(b) of Directive 98/24/EC¹, hazardous chemical agents and therefore fall within the scope of that legislation.

Annex I to Directive 98/24/EC sets a binding occupational limit value of 0,15 mg/m³ for inorganic lead and its compounds.

Annex II of this Directive specifies a binding biological limit value and health monitoring for lead and its ionic compounds: Biological monitoring must include the measurement of blood lead (PbB) levels by absorption spectrometry or by a method giving equivalent results. The binding biological limit value is 70 µg Pb/100 ml of blood.

In several EU Member States, lower OEL (Occupational Exposure Limits) values and additional short-term exposure limits are established.²

The Carcinogens and Mutagens Directive (CMD), recently been amended, includes limits of 0,075 mg/m³ for inorganic lead and its compounds as well as biological limit and health surveillance measures. This covered under the revised Carcinogens and Mutagens at work Directive (CMD) (Directive (EU) 2022/431 adopted on 09 March 2022).

Use by the consumer

This area is already tightly regulated and is a focus for **European Citizens' Initiative "Right2Water"**

Drinking Water Directive

Sanitary and building taps are covered by Directive 2020/2184 on the quality of water intended for human consumption³ adopted in December 2020, considering lead migration into water.

The recast is based on an assessment of the "old" Drinking Water Directive, the results of which were published following the European Citizens' Initiative "Right2Water" at the end of 2016 and updates the drinking water quality standards: Water must in principle comply with the requirements of this Directive up to the point of abstraction if it can be expected to be consumed by humans.

In addition, it also considers the effects of endocrine disruptors, drugs and microplastics.

Principle of risk assessment

One aspect that will particularly affect the field of technical building equipment is the risk assessment of domestic distribution systems required by the new Drinking Water Directive. This assessment considers legionella and lead. For migration lead, a quality parameter of 5 µg/L is set.

Latest by 12 January 2036, the limit value for "migration lead" into water will be reduced from 10 µg/l to 5 µg/l.

¹ Article 98/24/EC of the Council of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

² GESTIS - International limit values for chemical agents (Occupational exposure limits, OELs),

³ Directive 2020/2184 of the European Parliament and of the Council on the quality of water intended for human consumption

Materials - Positive Lists

The planned harmonization of material requirements is of particular importance to our industry. It will simplify the confirmation of conformity of finished products and raise the water quality.

Based on standardized methods of testing, assessment and inclusion in European positive lists, minimum hygiene requirements at European level must be created.

Ultimately, only materials or raw materials on these positive lists will be used for product parts that come into contact with drinking water.

A recent study shows that among the materials on these positive lists, those with the highest levels, will not achieve the objectives of 5µg/l of lead; they will therefore be removed. This will cause the amount of lead placed on the market through our equipment to reduce.

From a circular economy perspective

CEIR wishes to highlight that the volume of lead placed on the market by our sector is extremely low: the lead we put on the market is only used as an alloying element (PC7 per Table R.12-10⁴: Chemical Product Category) and represents only a tiny part of the 1% of lead placed on the market annually.

Table: EU uses of lead in 2015 (Annex XV SVHC report, 2018)

| Area of application | Volume tonnes |
|--|-----------------|
| Batteries | 1,274 000 (84%) |
| Rolled and extruded products | 91 000 (6%) |
| Shot and ammunition | 61 000 (4%) |
| Lead compounds | 61 000 (4%) |
| Cable sheathing | 15 000 (1%) |
| Miscellaneous (including alloys and solders) | 15 000 (1%) |



Lead placed on the market by our sector in very small quantities and being mostly recycled does not generate significant pollution for the environment.

Recycling

CEIR would like to point out that the only way to lower the lead content in a brass is to dilute it, which will cause problems in terms of recycling. Indeed, it will then require a massive supply of virgin materials (including copper and zinc), which will put pressure on the supply chain and raise material costs significantly. The mining and production of virgin copper and zinc will have a significant impact on the environment.

It should not be forgotten that due to the high cost of brasses (mainly due to increasing copper price), the majority of brasses involved in the life cycle of a faucet are already recycled: general experience has proved that pre- and post-consumer recycling is round about 80-85% (maybe even higher).

The brass used in our products is therefore ultimately very widely recycled, including the Lead it contains. From an environmental point of view, use of recycled brass grades produces significantly less environmental pollution compared to use of virgin brass grades.

Alternative to lead in brass

CEIR monitors developments and research on alternative to lead in brass, including brasses in which Bismuth is used as a substitute for lead. However, we consider this alternative to be environmentally undesirable.

The recyclability of our products also prevents resources depletion. Bismuth, to the contrary, is not a suitable alternative, as also agreed by ECHA in previous assessments (Annex XV Investigation report for lead in consumer articles specific derogations) for many reasons. Indeed, it has been shown that bismuth would impact the recyclability of brass alloy and recycling scrap will need to be segregated. Also, bismuth reserves and annual production are limited and would not be sufficient to replace lead use in brass alloys. Bismuth extraction implies in any case enormous lead waste volumes during bismuth extraction since it is a by-product of lead extraction (in order to produce 1 ton of bismuth, 30 to 200 tons of lead would need to be extracted).

⁴ According to [Guidance on Information Requirements and Chemical Safety Assessment - Chapter R.12: Use description](#)

The toxicity of bismuth is not well understood and recent environmental studies on bismuth call for prudence regarding its impact on terrestrial organisms and plants.

On the other hand, companies faced with the authorization burden may elect to substitute with bismuth which would compromise and complicate the recycle of brass in the EU. This collective burden of this substitution would be the direct consequence of the listing on Annex XIV of lead in the sanitary sector.

For all these reasons, we believe that from a societal point of view, inclusion of lead into Annex XIV of REACH without exemption for sanitary appliances will result in substitution by bismuth with possible dramatic consequences, in contradiction with the EU Green Deal objectives and the circular economy ambitions without achieving the objectives of the authorization process, while current legislation already offers a sufficient protection of workers, consumers and the environment.

The CEIR wishes to recall the study conducted by the Öko Institute, mandated by the European Commission in the context of the reassessment of lead exemptions of Directive 2011/65/EU⁵, whose report⁶ (available on CIRCABC) published in February 2022 concluded with a recommendation for the renewal of exemptions:

- Annex III, 6(a) and 6(a)-I: "Lead as an alloying element in steel for machining containing up to 0,35 % lead by weight"
- Annex III,6(b)/6(b)-I: "Lead as an alloying element in aluminum containing up to 0.4% lead by weight, provided that it comes from the recycling of aluminum scrap containing lead"
- Annex III, 6(c): "Copper alloy containing up to 4% lead by weight."

From a societal point of view

The CEIR wishes to highlight that authorization does not prohibit the import of articles (forging or foundry raw material) containing lead and foresee two unpalatable options for the industries it represents:

Relocations

If manufacturers can no longer get supplies with suitable raw materials for their products, they will be forced to source from outside the European Union, which in the long term could cause a relocation of the related production stages, or even worse of the entire production, thus generating a considerable destruction of know-how and jobs within the European Union.

Economic disadvantage

The fact of having to relocate production, combined with the impossibility of using a raw material of recycled origin, considerably increases the environmental footprint of the products of the industrials represented by the CEIR. Considering the mechanisms of the future initiative on sustainable products based largely on this parameter, they will automatically be penalized, without the slightest possibility of action.

⁵2011/65/UE: Directive of the Parliament European and Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

⁶ Report available on CIRCABC: <https://circabc.europa.eu/ui/group/4a348b1c-a501-42a5-a278-6954ef1d1855/library/da9d4a1c-4e1a-4db9-9590-7f0420fb2a05/details>



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