

Clarification Questionnaire Exemption 6(b)-I

Exemption for “Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling“

Abbreviations and Definitions

Al	Aluminium
EEE	Electrical and Electronic Equipment
Pb	Lead
RoHS	Directive 2011/65/EU on the Restriction of Hazardous Substances in Electrical and Electronic Equipment
UP	Umbrella Project

Background

The Oeko-Institut has been appointed by the European Commission, within a framework contract¹, for the evaluation of applications for exemption from Directive 2011/65/EU (RoHS), to be listed in Annexes III and IV of the Directive.

Your organisations EU Aluminium and COCIR, HARTING Stiftung & Co and Pepperl + Fuchs AG on behalf of the “RoHS Umbrella Industry Project” (hereafter referred to as “Umbrella Project” or “UP”) have submitted a request for the renewal of the above-mentioned exemption, which has been subject to an initial evaluation. A summary of the main argumentation for justifying the request is provided below as a first basis to be used in the stakeholder consultation planned as part of this assessment.

Please review the summary of the argumentation provided to ensure that your line of argumentation has been understood correctly and provide answers to the questions that follow that are to address aspects requiring additional information and/or clarification.

1. Summary of argumentation of applicant on the justification of the exemption

1.1. Background

A renewal of exemption 6(b)-I is requested by both applicants for:

¹ The contract is implemented through Framework Contract No. ENV.B.3/FRA/2019/0017, led by Ramboll Deutschland GmbH.

“Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling”.

In addition, the Umbrella Project applies for a renewal of exemption 6(b) for:

“Lead as an alloying element in aluminium containing up to 0,4 % lead by weight”.

Exemption 6(b) has been re-formulated following its last assessment in 2015/2016, which resulted in a split of 6(b)-I and 6(b)-II differentiating between applications of aluminium alloys where lead is unintentionally present and between applications where lead provides necessary properties. Exemption 6(b), however is still valid for categories 8 and 9 until July 2021 and will remain valid afterwards for category 8 in vitro diagnostic medical devices (21 July 2023), for category 9 industrial monitoring and control instruments and for category 11 (21 July 2024).

Applications covered under exemption 6(b) are assumed to cover the two main application areas covered under exemption 6(b)-I and exemption 6(b)-II. Therefore, the request for renewal of Ex 6(b) will not be followed up as a separate evaluation but rather considered in the course of the assessments of exemption 6(b)-I and exemption 6(b)-II, all the more so as the UP application for exemption 6(b)-II requests the exemption for EEE Cat. 1-10.

The following summary focuses on 6(b)-I.

EU Aluminium explains that *“there is less scrap available on the market today that contains lead”*, thus, in aluminium alloys where recycled lead-bearing aluminium scrap is the only source of lead the lead content is decreasing. Furthermore, the amendment of the EU Standard EN 1706 for Aluminium and Al alloys – Castings requires reducing the Pb content to 0,29% by weight. For those reasons, the threshold can be lowered to 0,3% by weight. Against this background, EU Aluminium proposes an adapted wording of the exemption:

Lead as an alloying element in aluminium casting alloys containing up to 0,3% lead by weight provided recycled lead-bearing aluminium scrap is the only source of the lead

The Umbrella Project states that *“there is no evidence that it would be possible to lower the limit from 0,4% for the time being”*. It is understood that the Umbrella Project was not aware of the timeline of the EU standards revision as they state that *“RoHS limits can be lowered only once new standards are in place and enough time has been granted [...]”* and *“RoHS limits cannot be changed before international standards are adopted and fully implemented”*.

The UP provides a non-exhaustive long list of applications (p. 7 of the application). The share of recycled Al from all Al used in EU end-use applications is estimated to have been 26 % in 2000 (EU Aluminium), 37% in 2013 (UP) and is estimated to reach 50% in 2050 (EU Aluminium). As for the amount of Pb entering the market through this exemption, both applicants state that it is not possible to derive the amount of lead through recycled aluminium.

EU Aluminium requests a duration of the exemption for 5 years for all EEE categories. The UP requests the maximum validity periods foreseen in the RoHS 2 Directive (which means 7 years for Cat. 8 and Cat. 9 EEE and 5 years for all other categories).

1.2. Applicant's justification for the requested exemption

1.2.1. Availability of alternatives (Substitution or Elimination, roadmap to substitution, reliability of substitutes)

The substitution of unintentionally present lead in aluminium originating from Al scrap recycling is explained not to be appropriate. Technological alternatives for removing the lead in the melting and refining step of the Al recycling process have been tested in 2012 without finding a technically feasible way. Both applicants refer to a study on 'Existing technologies for lead removal from Aluminium melts', carried out by MIMI Tech UG and finalized in June 2012. *The study shows that only few methods could be found and were assessed, i.e. Phase separation, Electrolysis and Vacuum distillation. These methods are either not approved above lab-scale or from an environmental/economical perspective are not feasible. The only alternative is to dilute the metal with primary aluminium. This would result in higher environmental impacts due to the fact that the production of primary aluminium is energy intensive*" (European Aluminium).

Both applicants state that a dilution of Pb takes place over time with no "new" Pb being added to the material stream as aluminium produced with primary material enters the waste phase and is recycled. They stress the environmental benefits of using recycled material as compared to virgin resource extraction.

The UP states that a closed loop system exists for Al as "*in 2017, collection rates for aluminium were over 95% for new scrap and 70% for old*".

1.2.2. Environmental and health arguments (also LCA aspects)

The applicants argue that health and environmental impacts of recycled aluminium lead to a lower total impact than the use of primary aluminium. This is based on several LCA studies.

1.2.3. Socioeconomic impacts

The UP argue in favour of the exemption explaining that the decrease in recycling of aluminium scrap will impact the EU circular economy and limit economic growth and jobs. Whether aluminium scrap can be used or not (in light of lead impurities) also affects the dependency of the EU on primary aluminium for which imports remains very high.

2. Clarification Questions

To EU Aluminium:

1. You state that "in the EU Standard EN 1706 for Aluminium and aluminium alloys - Castings that should be submitted to the Formal Vote before 19 January 2020 the maximum limit for lead was reduced to 0,29 % (weight by weight)."

Please provide an update of this information on the outcome of the vote and the status of the standard.

We can confirm that the EU Standard EN 1706 standard was published by CEN in April 2020 and is today available for purchasing in several national standardization bodies

The European Committee for Standardisation (CEN) notes that the use of standards is voluntary, and so there is no legal obligation to apply them. Standards can however be used to support EU legislation and policies².

However, the outcome of the discussions was an agreement of a value of 0.29% w/w of lead. Several member states participated in the discussion and confirmed that they were keen to start the work towards a reduction of the lead level in scrap one step at a time.

Adopting the value of 0.3% of lead w/w puts all stakeholders on track towards that goal.

As mentioned in the application for renewal of 6(b)-I submitted in December 2019, this voluntary agreement is possible because the lead content in aluminium scrap has slowly decreased over several years and it is estimated to continue to decrease further over time.

To UP:

2. EU Aluminium has provided an exemption request proposing a different wording. Please provide your opinion based on the Article 5(1)(a) criteria of RoHS 2. In this respect please:
 - a) Refer to the limitation of the exemption to aluminium casting alloys;
 - b) Refer to the status of EU Standardisation Processes you are aware of and how they would affect your view of this proposal.

To both:

3. If you think there is anything else that is relevant in addition to the questions above, please summarise it under this point;

(A) Information on the global situation

Through discussions with diverse stakeholders we have understood the complexity of companies having to deal with global supply chains in which elements are shipped from different countries across the world. We understand that such schemes might need time adjusting to the wave of regulations that are intending to reduce the permeability of the European market to the imports of hazardous substances (either on their own or in articles) with initiatives such as the SCIP database (Substances of Concern In articles as such or in complex objects (Products)) further to the notification obligation under Article 7 of REACH.

Whilst it is paramount to grant transition time to these systems it is also important to make progress in line with the political wave of the Green Deal and the Zero Pollution Action Plan. We believe in an approach that combines steady reductions with enough time for the industry to adapt to them, therefore our suggestion to grant 5 years.

(B) Link with regulatory developments of lead under REACH

Although the nature of REACH and RoHS is different – the first focusing on an upstream approach and the latter targeting downstream activities – both pieces of legislation pursue the common objective of addressing the presence of hazardous substances through the industrial supply chains.

With this in mind, one can look at the results from the health classification of lead metal as defined by Regulation (EC) No 1272/2008 of the European Parliament and of the Council of

² Retrieved from: <https://www.cen.eu/>.

16 December 2008 on classification, labelling and packaging of substances and mixtures, (the CLP regulation³) that determine a value of 0.3% of lead w/w for lead metal. Considering that for the time being the regulatory procedures addressing lead as a Substance of Very High Concern (SVHC⁴) see that value as a reference, it would make sense to promote alignment in this regard. Doing so would help approach the two positions and, in the event of a potential inclusion of lead metal in the authorisation list under REACH, would help maintaining coherence in the threshold values.

In case parts of your contribution are confidential, please provide your contribution in two versions (public /confidential). Please also note, however, that requested exemptions cannot be granted based on confidential information!

This contribution can be made public.

Finally, please do not forget to provide your contact details (Name, Organisation, e-mail and phone number) so that Oeko-Institut can contact you in case there are questions concerning your contribution.

Ms. Eva Tormo
EHS Manager, European Aluminium
tormo@european-aluminium.eu
+32 470 903 499

³ Retrieved from: <https://eur-lex.europa.eu>

⁴ Retrieved from: <https://echa.europa.eu/candidate-list-table>