Questionnaire 1 (Consultation) Exemption 2(c)-I of ELV Annex II

Aluminium alloys for machining purposes with a lead content up to 0,4 % by weight

1. Acronyms and Definitions

Pb	lead
Al	aluminium

2. Background

Bio Innovation Service, UNITAR and Fraunhofer IZM have been appointed[1] to assist the European Commission in the review of three exemptions currently listed in Annex II of the ELV Directive 2000/53/EC.

The above exemption has become due for review. It was reviewed[2] last time in 2015/2016 under the ELV Directive (see below link), and the consultants concluded that the use of lead was still unavoidable. The Commission therefore granted the exemption in line with the requirements of ELV Art. 4(2)(b)(ii). The exemption is due for review in 2021 in order to evaluate the state of scientific and technological progress.

This questionnaire has been prepared for the stakeholder consultation held as part of the evaluation. The objective of this consultation and the review process is to collect and to evaluate information and evidence according to the criteria listed in Art. (4)(2)(b)(ii) of Directive 2000/53/EC (ELV Directive), which you can download from here:

http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0053

Additional background information can be found on the exemption review page accessible through the following link: www.elv.biois.eu

If you would like to contribute to the stakeholder consultation, please answer the following questions:

3. Questions

1. Please explain whether the use of lead in aluminium for machining purposes addressed under exemption 2(c)-I of the ELV Directive is still unavoidable so that Art. 4(2)(b)(ii) of the ELV Directive would justify the continuation of the exemption. In the last review of this exemption, it was found that aluminium for machining purposes still required 0.4 % of lead addition.
    a. Which lead-free aluminium alloys have become available meanwhile for machining purposes?

[1] It is implemented through the specific contract 070201/2020/832829/ENV.B.3 under the Framework contract ENV.B.3/FRA/2019/0017

[2] Gensch et al. (2016 a): 8th Adaptation to scientific and technical progress of exemptions 2(c), 3 and 5 of Annex II to Directive 2000/53/EC (ELV). Final Report for the European Commission DG Environment under Framework Contract No ENV.C.2/FRA/2011/0020. ELV III.5.
https://elv.exemptions.oeko.info/fileadmin/user_upload/Consultation_2014_1/20160216_ELV_Final_Gen_Ex_2c__Ex_3_Ex_5.pdf

   b. For which machined applications can they be used?
   c. Can the content of lead be reduced for machining applications where lead-free Al is not viable or available?

2. Please explain the efforts your organisation has undertaken to find and implement the use of lead-free alternatives for automotive uses. Please refer to alternatives, which at least reduce the amount of lead applied or eliminate its necessity altogether.

3. Please provide a roadmap specifying the necessary steps/achievements in research and development including a time scale for the substitution or elimination of lead in this exemption.

4. Aluminium (Al) used in vehicles may consist at least partially from recycled aluminium, which contains lead (Pb) that was not intentionally added. This required the exemption to allow a Pb content of around 0.4 % to enable the use of recycled aluminium even where it is not required, in particular in cast aluminium. In the last review[2], ACEA et al. expected that the Pb content in scrap aluminium (Al) will gradually decrease from around 0.4 % in 2010 to around 0.2 % in 2023.
   a. Can you confirm this trend, or do you have substantiated different figures indicating a different trend? What is the actual lead content in Al scrap?
   b. Contaminations in aluminium, for example from shredded end-of-life vehicles, cannot be removed as easily as contaminations from precious metals and copper fractions. Al scrap therefore is diluted with more or less primary Al regularly to achieve the aspired purity and quality of the Al material. The Pb content in secondary Al produced from (diluted) Al scrap must therefore be lower than in the Al scrap. What is the current content of lead in secondary aluminium?

5. What is the amount of lead that would be contained in in vehicles?
   a. placed on the EU market
   b. worldwide

   in case the exemption is continued? Please provide a rough calculation or substantiated estimate.

6. Overall, please let us know whether you agree with the necessity to continue the exemption and sum up your arguments for or against the continuation.

Please note that answers to these questions can be published in the stakeholder consultation, which is part of the evaluation of this request. If your answers contain confidential information, please provide a version that can be made public along with a confidential version, in which proprietary information is clearly marked.

Please do not forget to provide your contact details (Name, Organisation, e-mail and phone number) so that the project team can contact you in case there are questions concerning your contribution.