

Consultation Questionnaire Exemption No. 3

Review of Exemption 3 „Copper alloy containing up to 4% lead by weight “

Background

The Öko-Institut has been appointed by the European Commission within a framework contract¹ for the review of exemptions in Annex II of Directive 2000/53/EC (ELV Directive). The aim of this project is to evaluate whether the use of lead in the above mentioned exemption is still unavoidable and the continuation of the exemption is therefore justified in line with Art. (4)(2)(b)(ii) of the ELV Directive.

Since the publication of the ELV Directive, exemption 3 is listed in Annex II in the above mentioned wording. Exemption 3 was reviewed in 2009/2010. A review in five years was recommended by Öko-Institut 2010 because

- Lead free copper alloys are available but stakeholder claimed that they were not technical equivalent for all applications;
- There were contradicting opinions on the technical feasibility of lead reduction.

The review of exemptions 3 in 2015 was published in the fifth revision of Annex II in 2011.²

Questions

1. Please state whether you either support an extension of the exemption or whether you would like to provide arguments against the extension. In both cases please provide detailed technical argumentation / evidence to support your statement.
2. Please describe in which applications leaded copper alloys are used in vehicles; and indicate the functionality of lead in these applications (e.g. specific function, performance criteria, etc.).
Please make a distinction between applications in which the use of lead is unavoidable (e.g. due to safety reasons) and other applications.
3. Please indicate
 - a) the amount of lead containing copper alloys in vehicles for the above mentioned applications in percentage by weight;
 - b) the total lead amount contained in those applications per vehicles (in absolute numbers)?

¹ Contract is implemented through Framework Contract No. ENV.C.2/FRA/2011/0020 led by Eunomia

² Commission Directive 2011/37/EU of 30 March 2011 amending Annex II to Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles

4. Please provide an estimate of the annual quantities of lead used in these automotive applications in Europe and/or worldwide. If data is not available, please provide estimations.

5. What kinds of lead free alternatives are available for which applications (e.g. silicon brass “Ecobrass”)?
Please specify the effects of lead-free substitutions on material characteristics and performance (e.g. appearance, (long-term) reliability, manufacturing yield, safety)?

6. If no lead free alternatives are available for a specific application, please explain why the substitution of the lead is currently technically or scientifically impossible / impracticable. Please provide sound data/evidence.

7. Please indicate which research has been done during the last years to find substitutes and/or to develop alternatives? Please provide specific documents/evidence supporting the search for substitutes (e.g. roadmap).

8. Are there technical developments that allow a further reduction of lead? Can the limit of 4% be minimized? If not, please explain why this is currently technically or scientifically impossible / impracticable.

References

Öko-Institut 2010: Stéphanie Zangl et al., Öko-Institut; Otmar Deubzer, Fraunhofer IZM: Adaptation to scientific and technical progress of Annex II to Directive 2000/53/EC (ELV) and of the Annex to Directive 2002/95/EC (RoHS), final report; Freiburg, 28 July 2010;
http://elv.exemptions.oeko.info/fileadmin/user_upload/Final_Report/Corr_Final_report_ELV_RoHS_28_07_2010.pdf