

Consultation Questionnaire Exemption No. 8(h)

Review of exemption 8(h) “Lead in solder to attach heat spreaders to the heat sink in power semiconductor assemblies with a chip size of at least 1 cm² of projection area and a nominal current density of at least 1 A/mm² of silicon chip area”

Background

The Öko-Institut together with Fraunhofer IZM 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.

The Commission adopted the above exemption 8(h) to Annex II of the ELV Directive after the respective exemption request was reviewed in 2009. The use of lead had been found to be unavoidable in this application and thus based on Art. (4)(2)(b)(ii) of the ELV Directive granting an exemption was justified.² As the stakeholders had indicated that lead-free solutions were under development and may become available in 2015, the exemption is due for review in 2014.

Questions

1. Please explain whether the use of lead in the application exempted under exemption 8(h) 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.
2. In case the substitution of lead is not viable, please explain the efforts undertaken to find a lead-free alternative.

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

² For details see Öko-Institut (2010), pages 123 to 136

3. Please indicate how much lead would be used under this application and substantiate the amount of lead with a calculation for vehicles put on the European market, and worldwide.
4. Please provide a roadmap towards ELV-compliance if the use of lead is still unavoidable. Please break down the roadmap according to steps to be performed, and present and explain the related timelines.

2 References

- Ökoinstitut 2010 Stéphanie Zangl et al., Ökoinstitut; 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, or https://circabc.europa.eu/sd/d/a4bca0a9-b6de-401d-beff-6d15bf423915/Corr_Final%20report_ELV_RoHS_28_07_2010.pdf; last accessed 4 September 2013