

## **Questionnaire**

### **Exemption 5 Annex II Directive 2000/53/EC**

#### **“Lead in batteries”**

Stakeholders are invited to clarify the following specific questions as detailed as possible. In your contribution, please state which question number you are referring to.

- 1) Please specify in which type of vehicles falling under the scope of the ELV Directive lead-acid batteries are used (the list should be as comprehensive as possible).
- 2) To our current knowledge automotive lead-batteries weigh approximately 13 kg with a lead content of about 8 kg and have a lifetime of about 5 years. Please confirm / correct these figures.
- 3) How much of the lead contained in lead-acid automotive batteries is secondary lead?
- 4) How many vehicles falling under the scope of the ELV Directive and containing a lead-acid battery are currently put onto the EU market annually?
- 5) Please explain how the lead-acid battery recycling systems are set up in the EU, i.e.: How many batteries are collected annually? What is the share compared to total number of vehicles being discarded? What amount of lead is recycled and in which applications is it then used? What happens to the lead which can not be recycled? What is the related environmental impact? When can a completely closed-loop recycling be achieved? What efforts are currently being undertaken in this respect? Have the results of the EU-funded project CLEANLEAD be put into practice (cf. [http://ec.europa.eu/research/industrial\\_technologies/articles/article\\_1167\\_en.html](http://ec.europa.eu/research/industrial_technologies/articles/article_1167_en.html))? If not, why?
- 6) Please provide any LCA kind of data describing the environmental impact of lead used in lead-acid automotive batteries (including production and end-of-life phase).
- 7) To our current knowledge there is a technology for regeneration/pole reversal of lead-acid batteries that allows to recreate and raise their capacity thus doubling a battery's lifetime. Please give information whether this is already broadly in use and if not what the hindrances are.
- 8) What is the current status concerning development of alternative technologies such as NiMH (nickel metal hybrid) and Lilon (lithium ion)? When will they be able to enter mass production for which type of vehicle covered by the ELV Directive? What are currently the hindering factors? How much more would a lead-free alternative cost?

Furthermore, the following general questions can be used to support the exemption or taken as a basis for requesting an amendment or the discontinuation of the exemption:

- What is the application in which the substance/compound is used for and what is its specific technical function?
- What is the specific (technical) function of the substance/compound in this application?
- Please justify why this application falls under the scope of the ELV Directive (e.g. is it a finished product? is it a fixed installation? What category of the WEEE Directive does it belong to?).
- What is the amount (in absolute number and in percentage by weight) of the substance/compound in: i) the homogeneous material<sup>1</sup>, ii) the application and iii) total EU annually for relevant applications?

Documentation provided by stakeholders including replies to the questions above should take the following points into consideration:

- Please justify your contribution according to Article 4 (2) (b) (ii) ELV Directive, i.e.
  - Justification for exemption still given or not given anymore according to technical and scientific progress;
  - Substitution of concerned hazardous substances via materials and components not containing these is technically or scientifically either practicable or impracticable;
  - Elimination or substitution of concerned hazardous substances via design changes is technically or scientifically either practicable or impracticable.
- Please provide sound data/evidence on why substitution/elimination is either practicable or impracticable (e.g. what research has been done, what was the outcome, is there a timeline for possible substitutes, why is the substance and its function in the application indispensable or not, is there available economic data on the possible substitutes, where relevant, etc.).
- Please also indicate if feasible substitutes currently exist in an industrial and/or commercial scale for similar use.
- Please indicate the possibilities and/or the status for the development of substitutes and indicate if these substitutes were available by 1 July 2003 or at a later stage.
- Please indicate if any current restrictions apply to such substitutes. If yes, please quote the exact title of the appropriate legislation/regulation.
- Please indicate benefits/advantages and disadvantages of such substitutes.

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<sup>1</sup> Please refer to the FAQ document on RoHS and WEEE Directives available at [http://www.europa.eu.int/comm/environment/waste/weee\\_index.htm](http://www.europa.eu.int/comm/environment/waste/weee_index.htm)

- Please state whether there are overlapping issues with other relevant legislation such as e.g. the Energy-using Products (EuP) - EuP Directive (2005/32/EC) that should be taken into account..
- If a transition period between the publication of an amended exemption is needed or seems appropriate, please state how long this period should be for the specific application concerned.

**Stakeholder contributions shall be clearly marked “NOT FOR PUBLICATION” if they are not be posted as comments on the consultation website ([http://circa.europa.eu/Public/irc/env/elv\\_4/library](http://circa.europa.eu/Public/irc/env/elv_4/library)).**