

Questionnaire

Exemption 10 Annex II Directive 2000/53/EC

“Electrical components which contain lead in a glass or ceramic matrix compound except glass in bulbs and glaze of spark plugs”

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.

The most recent review of the RoHS Directive included the evaluation of the exemption for lead in ceramics, which is listed as exemption no. 7c in the current Annex of the Directive.

The review showed that lead can be replaced in dielectric ceramic materials in electrical and electronic components for low voltage applications up to 125 V AC and 250 V DC

(cf. section 4.12 of the final report

http://ec.europa.eu/environment/waste/weee/pdf/final_reportl_rohs1_en.pdf).

As the automotive and other industries use at least in parts identical or similar components, it must be assumed that the findings in the review of the RoHS Annex are transferable to components used in electrical and electronic systems in vehicles.

- 1) Please describe the different material composition and structure of piezo, dielectric and PTC ceramics. Can these materials be clearly differentiated from the material scientific point of view?
- 2) Please explain which components in automotive applications use dielectric ceramic materials.
- 3) Please explain if there are components or specific applications of such components, in which lead cannot be replaced in dielectric ceramic materials.
- 4) Are any other substitutes available for lead in other than dielectric ceramics (piezoelectric ceramic materials, PTC or other ceramic materials) used in components?
- 5) Please propose a wording for a possible exemption based on the proposed wording – possibly with amendments and clarifications – in the report cited above for RoHS exemption 7c:
 - “Electrical and electronic components which contain lead in a glass or ceramic other than a dielectric ceramic or in a glass or ceramic matrix compound, (e.g. piezoelectronic devices) until 31 July 2014, and for the repair, and to the reuse, of equipment put on the market before 1 August 2014.
 - Electrical and electronic components for a voltage of 125 V AC or 250 V DC or higher which contain lead in a dielectric ceramic until 31 July 2014, and for the repair, and to the reuse, of equipment put on the market before 1 August 2014.

- Electrical and electronic components for a voltage of less than 125 V AC or 250 V DC which contain lead in a dielectric ceramic until 31 December 2012, and for the repair, and to the reuse, of equipment put on the market before 1 January 2013.”

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 material¹, 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.

¹ Please refer to the FAQ document on RoHS and WEEE Directives available at http://www.europa.eu.int/comm/environment/waste/weee_index.htm

- 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.
- 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).