7th Adaptation to scientific and technical progress of exemptions 8(e), 8(f), 8(g), 8(h), 8(j) and 10(d) of Annex II to Directive 2000/53/EC (ELV)

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 cm 2 of projection area and a nominal current density of at least 1 A/mm 2 of silicon chip area"

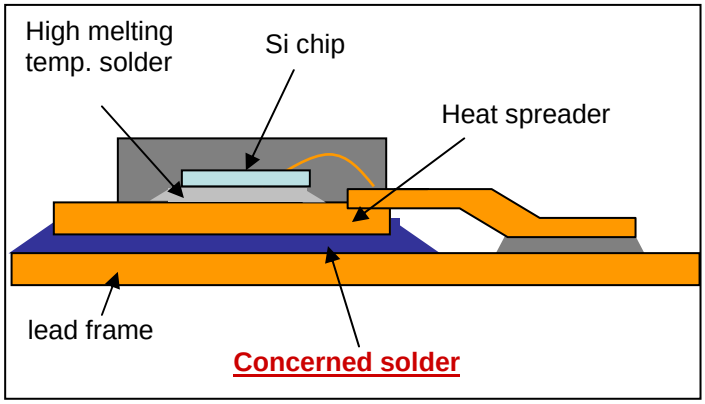
Input of the automotive industry expert group, represented by ACEA, JAMA, KAMA, CLEPA, et al.
Base of the contribution has been provided by JAMA.

The above mentioned industry stakeholders suggest following rewording of the exemption:

"Vehicles type approved before 1 January 2016 and spare parts for these vehicles"

Location of the application

The location of concerned solder is shown in the figure:



Questions & Answers

Answers to the questionnaire

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.

Developments for lead free connections being in process, the existence of this specific exemption is not longer necessary for new type approved vehicles, from January 2016.

2. In case the substitution of lead is not viable, please explain the efforts undertaken to find a lead-free alternative.

New solutions are in process. It is believed they will have, for this application, equal thermal / electric properties as the soldering with lead.

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.

The amount of lead per vehicle was assumed to be 11.6 g. For 10,000 cars, the amount of lead is 0.12 tons /year.

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.

The usage of lead for newly type approved vehicles under this exemption will no longer be necessary from January 2016 onwards. For vehicles that were put on the market until January 2016, the exemption for spare parts needs to be maintained.

Therefore, the following exemption is proposed:

“Vehicles type approved before 1 January 2016 and spare parts for these vehicles”

Date: 4 November 2013

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