"9th Adaptation to scientific and technical progress of exemptions 8(e), 8(f)(b), 8(g) and re-evaluation of entry 8(j) of Annex II to Directive 2000/53/EC (ELV)"

To: Öko-Institut e.V. – Institute for Applied Ecology,
Via Email: elv@oeko.de

CC: DG ENV: Ms. Artemis Hatzi-Hull, Ms. Sarah Nelen

DG ENT: Ms. Joanna Szychowska

Submission of ACEA, CLEPA, JAMA and KAMA representing the affected automotive industry including the supply chain to the stakeholder consultation published on 29th May 2018 by the OEKO Institute, Freiburg / Germany.

Foreword

This document provides the consolidated stakeholder submissions of the automotive industry associations ACEA, CLEPA, JAMA, KAMA, and associated industrial stakeholders to the "9th Adaptation to scientific and technical progress of exemptions 8(e), 8(f)(b) and 8(g) of Annex II to Directive 2000/53/EC (ELV)". The submission for entry 8(j) was sent in advance separately.

The consultation was announced on 29th May 2018 and concludes on 26th June 2018 for entry 8(j) and - as published by OEKO on June 20th 2018 – on 24th July 2018 for entries 8(e), 8(f)(b), 8(g).

Under category Lead and Lead compounds in components following entries are in our scope:

- 8(e). Lead in high melting temperature type solders (i.e. Lead-based alloys containing 85 % by wt. or more Lead)
- 8(f)(b). Lead in compliant pin connector systems other than the mating area of vehicle harness connectors
- 8(g). Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
- 8(j). Lead in solders for soldering of laminated glazing (submission was yet sent separately)

Introduction

The automobile industry actively supports environmental policy efforts to design products free of hazardous substances and as environmentally sound as possible. All car manufacturers and actors in the supply chain have set up internal goals and environmental guidelines relating to products as well as production processes.

As self-responsible partners of the manufacturers, the suppliers are affected in a special way, having to deal with their global supply chain, sometimes down to the raw material basis.

The automotive industry and their associations fully accept their product responsibility but emphasize the need for proportionate actions or initiatives. The represented industry stakeholders agree upon the minimization of negative environmental impacts during all phases of a vehicle life. In order to reach this common goal to manufacture, market, operate service and recover products with the lowest possible impact on environment or human health. The environmental impact, the relevance of certain substances and their technical and economic implications need to be understood prior mandating substance restrictions. In addition, at our opinion, interference with EU flagship initiatives like circular economy resp. critical resources strategy[2] or the EU general safety regulation[1] and the new waste framework directive[2] (art. 9 1(c)) needs to be considered. E.g. Indium and Bismuth, which are under consideration to replace Lead in some applications, are part of EU critical resources strategy[3] and are recommended to be used with preference in essential applications and have today challenges in recycling.

Achieved progress in heavy metals reduction

The automotive industry has been continuously reducing the amount of Lead necessary for the production of vehicles since the year 2000. Two detailed studies mandated by the automotive industry have been conducted and confirm the achieved progress. The OEKO Institute study from 2009 considered the reduction in lifetime related emissions in a cradle to grave scope. A further study of ERA technologies scrutinized the achieved reductions per vehicle and concludes that – battery excluded because of being used in closed loop - the intentional use of Lead per vehicle is now in range of average background level of the raw materials used therein. Based on the fact that the potentials for significant and impacting Lead reduction have been realized, any further measures with real benefits for environment are missing in our opinion.

Further comments to stakeholder contribution

The enclosed entry specific contributions reflect the work of our industry expert groups since the last review of the exemptions. With high effort we took the challenges addressed to our industry within the last consultant reports. In general, technical information given in the course of previous consultations, is seen still as valid and not reproduced explicitly in the current submissions.

Where possible and necessary our search for Lead-free alternatives was supported by external expertise but without public funding over the last few years.

Our working groups are supported by well-educated and excellent experts with external acknowledged expertise in the vehicle and material producing industry.

We ask to keep the wording for the entries 8(e), 8(f)(b), and 8(g) as these entries are yet very specific and in addition not to make any further split in new subentries.

Referring to E-vehicles we see enhanced life time (driving and charging time) requirements for electronic components. The related demands for component long time reliability may be especially challenging for identifying suitable substitutes for Lead.

[1] EU General safety regulation proposal https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0286&from=EN ; Brussels 17.5.2018

[2] DIRECTIVE (EU) 2018/851https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0851&from=EN ;14.6.2018

[3] https://ec.europa.eu/docsroom/documents/27348 last accessed 2018_06_20 ; COMMISSION STAFF WORKING DOCUMENT SWD(2018) 36 final Brussels16.01.2018; Report on Critical Raw Materials and the Circular Economy

For the year 2017, a vehicle volume of 15.659 M units new placed (registered) on the EU market was used as basis for quantity calculations[4]. As ACEA et al. do not have access to technical data of vehicles in some specific markets, worldwide figures on applications would be incomplete and therefore we concentrate on figures of EU market only. This matches also with EU ELV legislation.

As communicated in previous stakeholder contributions, the development period for implementation of lab validated solutions into production is still 3 to 6 years if no failures occur. The average model cycle is typically around 8 years.

We would like to emphasize that vehicles and their components have to face harsh ambient conditions in Europe. Ambient temperatures from - 40 up to 50 °C outside and interior temperatures to above 100 °C have to be tolerated and operating temperatures e.g. of some engine components may exceed 800 °C. Components e.g. like electronic control units have to be robust against vibrations and acceleration figures above 70 g_0. During vehicle use all components undergo long termed high levels of mechanical and thermo-mechanical stress and dynamic load conditions. This is valid not only for a short period but over a use period of ten to fifteen years and sometimes longer. That is one of the reasons why development and validation of new components require such long development periods. This ensures that safety and reliability demands are fulfilled.

Furthermore, the continued improvement of the overall environmental performance of vehicles and their production processes requires that we also assess the environmental performance of substitute materials in order to allow long lasting decisions for optimized materials in each application.

The entire industry, however, needs a reliable planning basis for these substitute materials for at least one development cycle of a vehicle. This needs to be considered in any future phase out recommendation, plans and EU Commission decisions.

Attached you will find the submissions for exemptions 8(e), 8(f)(b) and 8(g) with technical justifications compiled by expertise of the entire automotive industry, based on the current knowledge.

We would welcome the opportunity to continue open discussions with the Commission and the consultants during the assessment process of the consultation and are willing to answer to further possible questions on the subject.

Should you need any further information, please address your requests in writing to the listed contact person below Cc'ing the listed associations representatives.

In conclusion, the automotive industry requests the extension of the exemptions as specified in the attached documents.

[4] http://www.oica.net/category/sales-statistics/ last accessed 20.06.2018 EU28+EFTA sales figures 2016, 2017 PC

We would appreciate it, if you would confirm the receipt of the present document.

We thank you in anticipation.

With best regards,

Dr. Jens Warsen & Reinhard S. Hoock

On behalf of the Joint Industry Associations and the Associated Industry Stakeholders

Enclosures:

- Submission for 8(e) (20180718_8(e)_questionnaire_ACEA_et_alt.pdf, 12 pages)
- Submission for 8(f)(b) (20180718_8(f)(b)_questionnaire_ACEA_et_alt.pdf, 6 pages with two attachments)
  -att1_ACEA_CLEPA_JAMA_KAMA_Submission_ELV_Stakeholder_Consultation_8(f)_20131104.pdf,
  -att2_ELV-Exemptions_2015_8(f).pdf)
- Submission for 8(g) (20180719_8(g)_questionnaire_ACEA_et_alt.pdf, 15 pages)

Contact details: please see next page

Contact details of the representatives of the associations

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Associations[5] **(**Registration ID number listed in EU transparency register can be found below)

The European Automobile Manufacturers Association (ACEA) Association des Constructeurs Européens d'Automobiles

Founded in 1991, ACEA represents the interests of the fifteen European car, truck and bus manufacturers at EU level. Its membership consists of the major international automobile companies, working together in an active association to ensure effective communication and negotiation with legislative, commercial, technical, consumer, environmental and other interests. ACEA is also linked to national Associations of the Automotive Industry.

Japan Automobile Manufacturers Association, Inc. European Office (JAMA)

JAMA is a non-profit industry association which comprises Japan's fourteen manufacturers of passenger cars, trucks, buses and motorcycles. JAMA works to support the sound development of Japan's automobile industry and to contribute to social and economic welfare.

Korea Automobile Manufacturers Association (KAMA)

KAMA is a non-profit organization, representing the interests of automakers in Korea. KAMA is also dedicated to the sound growth of the automobile industry and the development of the national economy.

CLEPA

CLEPA represents the world's most prominent suppliers which have plants in all 28 EU member states. CLEPA's aim is to promote, in Europe and internationally, the general interests of the motor equipment and parts industry. by: supporting the EU decision making process and legislation affecting the automotive business; coordinating views and opinions regarding all the challenges facing the industry, both in the technical and the economic fields;

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The associations are registered at the EU Transparency register as follows:

European Automobile Manufacturers Association (ACEA) Identification No. 0649790813-47

European Association of Automotive Suppliers (CLEPA) Identification No. 91408765797-03

Japan Automobile Manufacturers Association, Inc. (JAMA) European Office Identification No. 47288759638-75

Korea Automobile Manufacturers Association (KAMA) Identification No. 438549614851-54