

## Consultation Questionnaire Exemption No. 8b (renewal request)

### *Exemption for „Cadmium and its compounds in electrical contacts“*

#### Abbreviations and Definitions

Cd     cadmium

#### Background

The Oeko-Institut and Fraunhofer IZM have been appointed within a framework contract<sup>1</sup> for the evaluation of applications for the renewal of exemptions currently listed in Annexes III of the new RoHS Directive 2011/65/EU (RoHS 2) by the European Commission.<sup>1</sup>

NEMA and Sensata submitted a request for the renewal of the above mentioned exemption, which has been subject to a first completeness and plausibility check. The applicant has been requested to answer additional questions and to provide additional information, to be made available on the request webpage of the stakeholder consultation (<http://rohs.exemptions.oeko.info/index.php?id=228>).

The objective of this consultation and the review process is to collect and to evaluate information and evidence according to the criteria listed in Art. 5 (1) (a) of Directive 2011/65/EU (RoHS II), which can be found under:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011L0065:EN:NOT>

If you would like to contribute to the stakeholder consultation, please read the following summary of the exemption requests and answer the below questions:

#### Summary of Exemption Requests

##### History of the Exemption

The use of cadmium in electrical contacts was already exempted under Ex. 8 in the annex of Directive 2002/95/EC (RoHS 1) when it first entered into force in 2003 as follows:

*8. Cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.*

With the Commission Decision 2005/747/EC in October 2005, the exemption wording was changed, enlarging the scope to:

*8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.*

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

The exemption was reviewed in 2005/2006<sup>2</sup>, and again in 2008/2009<sup>3</sup> and thus gradually transferred into its current status with a split into exemption 8a and 8b:

- 8(a) Cadmium and its compounds in one shot pellet type thermal cut-offs  
Expires on 1 January 2012 and after that date may be used in spare parts for EEE placed on the market before 1 January 2012
- 8(b) Cadmium and its compounds in electrical contacts

In the 2009 report, the expiry date 31 July 2014 was recommended for Ex. 8b, which was the maximum possible under RoHS Directive 2002/95/EC (RoHS 1) (four years from 2010 on). It was clear that cadmium-free contact materials are available for applications under Ex. 8b, but that there are no drop-in replacements. Industry therefore required time to adapt the cadmium-free solutions to their applications and to test them to make sure the cadmium-free contacts suffice the safety and other requirements. The five years from 2009 to 2014 were deemed appropriate to cope with this task, and to ask for specific exemptions should cadmium-free solutions not be feasible in defined cases.

The exemptions in the annex of RoHS 1 were taken over into the recast RoHS Directive 2011/65/EU (RoHS 2). In the course of that process, the expiry dates of all exemptions with maximum validity duration of four years were systematically increased to five years, but from July 2011 on. This gave industry a total of seven years from 2009 to find cadmium-free solutions for cadmium in contacts.

### Summary of the Exemption Requests

Sensata as well as NEMA request the exemption be renewed for another five years – the maximum possible - with the same wording maintaining its current broad scope without any specification. Sensata nevertheless mentions that the remaining applications in which Sensata cannot yet apply substitutes are 11 products of two categories (thermo sensors and thermal motor protectors).

For details, please check the applicants' exemption requests at:

<http://rohs.exemptions.oeko.info/index.php?id=248>

### **Questions**

1. Please provide information concerning possible other substitutes or developments that may enable reduction, substitution or elimination, at present or in the future, of "Cadmium and its compounds in electrical contacts";
  - a. In this regard, please provide information as to alternatives that may cover part or all of the applicability range of "Cadmium and its compounds in electrical contacts";
  - b. Please provide quantitative data as to application specifications to support your views.
2. The applicants requested the renewal of Ex. 8b of Annex III with the same wording and for another maximum validity period of five years:

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<sup>2</sup> (Gensch, Carl-Otto [Öko-Institut e.V.], et al. 2006) "Adaptation to scientific and Technical progress under Directive 2002/95/EC: Final Report - final version,"; [http://ec.europa.eu/environment/waste/weee/pdf/rohs\\_report.pdf](http://ec.europa.eu/environment/waste/weee/pdf/rohs_report.pdf), page 25 et seqq.

<sup>3</sup> For details see report of (Carl-Otto Gensch, Öko-Institut e. V., et al.), with the assistance of Stéphanie Zangl, Rita Groß, Anna Weber, Öko-Institut e. V., and Otmar Deubzer, Fraunhofer IZM (19 February 2009), page 114 sqq.

*“Cadmium and its compounds in electrical contacts”*

- a. Do you agree with the scope and proposed formulation of the exemption as proposed by the applicants? Please take into account the answers to above questions).
  - b. Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.
  - c. Please explain why you either support the applicants’ request or object to it. To support your views, please provide detailed technical argumentation / evidence in line with the criteria in RoHS Art. 5(1)(a).
3. Please provide information as to research initiatives which are currently looking into the development of possible alternatives for some or all of the application range of Cadmium and its compounds in electrical contacts.
- a. Please explain what part of the application range is of relevance for such initiatives (in what applications substitution or elimination may be possible in the future).
  - b. Please provide a roadmap of such on-going research (phases that are to be carried out), detailing the current status as well as the estimated time needed for further stages.
4. Are there any other aspects you deem to be of importance for the requested exemption?

**In case parts of your contribution are confidential, please provide your contribution in two versions (public /confidential). Please also note, however, that requested exemptions cannot be granted based on confidential information!**

**Finally, please do not forget to provide your contact details (Name, Organisation, e-mail and phone number) so that Oeko-Institut/Fraunhofer IZM can contact you in case there are questions concerning your contribution.**

## References

(Carl-Otto Gensch, Oeko-Institut e. V., et al. 19 February 2009) *Adaptation to scientific and technical progress under Directive 2002/95/EC: Final Report*. With the assistance of Stéphanie Zangl, Rita Groß, Anna Weber, Öko-Institut e. V. and Otmar Deubzer, Fraunhofer IZM. Freiburg: . Accessed July 14, 2015.

[http://ec.europa.eu/environment/waste/wEEE/pdf/final\\_reportl\\_rohs1\\_en.pdf](http://ec.europa.eu/environment/waste/wEEE/pdf/final_reportl_rohs1_en.pdf);

[http://ec.europa.eu/environment/waste/wEEE/pdf/report\\_2009.pdf](http://ec.europa.eu/environment/waste/wEEE/pdf/report_2009.pdf).

(Gensch, Carl-Otto [Oeko-Institut e.V.], et al. 2006) “Adaptation to scientific and Technical progress under Directive 2002/95/EC: Final Report - final version,”;  
[http://ec.europa.eu/environment/waste/wEEE/pdf/rohs\\_report.pdf](http://ec.europa.eu/environment/waste/wEEE/pdf/rohs_report.pdf)