Questionnaire Exemption Request No. 10

"Lead in solders to PCBs for mounting cadmium telluride and cadmium zinc telluride digital array detectors"

Background

COCIR applies for an exemption for "Lead in solders to PCBs for mounting cadmium telluride and cadmium zinc telluride digital array detectors".

The applicant puts forward the following main arguments.

a) Cadmium telluride and cadmium zinc telluride (CZT) digital array detectors used in X-ray imaging are highly sensitive radiation detectors. The radiation dose on patients thus can be reduced compared to digital detectors. This material is, however, very brittle and fragile so that these detectors cannot be soldered to substrate circuit boards with lead-free solders. Only lead containing solders facilitate high yields as they are more ductile and thus can better compensate the thermal mismatch between the substrate circuit board and the detector. The fragility of CZT raises concerns about the long term reliability if lead-free solders are used.

b) An exemption is necessary allowing manufacturers more time to develop high yield lead-free bonding processes and to ensure that long term reliability is at least as good as with lead containing solders.

For details, please check the applicant's exemption request at http://rohs.exemptions.oeko.info/index.php?id=117. This exemption request has been subject to a first completeness and plausibility check. The applicant has been requested to answer additional questions and to provide additional (c.f. link above).

If you would like to contribute to the stakeholder consultation, please answer the following questions:

Questions

1. Please state whether you either support the applicant's request or whether you would like to provide argumentation against the applicant's request. In both cases please provide detailed technical argumentation / evidence in line with the criteria in Art. 5 (1) (a) to support your statement.

2. Do you agree with the scope of the exemption as proposed by the applicant? Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.

3. The applicant does not propose an expiry date, which means that the exemption would have a maximum validity until 2021[1]. Do you agree with this expiry date, or would an earlier expiry be feasible in the face of upcoming lead-free solutions?

4. Do you consider any other aspects or details to be of importance, which have not yet been taken into account?

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

[1] Due to a standard 7 year validity period for category 9 exemptions as stated in Article 5 (2) of Directive 2011/65/EU and an inclusion of category 9 equipment into the scope of Directive 2011/65/EU on 22 July 2014 (Article 4 (4) (d))