

Specific questions request 5

“Lead in solders for the connection of very thin (<100 µm) enamelled copper wires and for the connection of enamelled copper clad aluminium wires (CCAAs) with a copper layer smaller than 20 µm.”

The following specific questions should be answered in your stakeholder contribution if you support request 5 to be granted / rejected:

1. In the request application form it is mentioned that Totoku Electric CO., LTD introduced KCCAAs with diameters above 150 µm. Is this the only supplier for this type of CCAAs?
2. As a specific application for the exemption the applicant only names high tone tweeters which is also reflected in the wording proposal. On its website Totoku also presents CD-R and HDD techniques using CCAAs. Do you know if these two product types can forbear from lead in solders for these CCAAs?
3. In the request document the applicant mentions in 4b that “Removal of the lacquer with heated molted salts proved also to be incomplete and very critical.” What exactly is referred to with “very critical”? Could more (quantitative) details be provided?
4. In the request document the applicant also mentions that he “expects that at least one of these solutions will be available starting from 2012-2014”. Do you know who is doing research in the two proposed future technologies?
5. How do competitors of D&M PSS Belgium solve this problem? Are there any RoHS compliant solutions available on the market than can be used as substitutes?
6. Is this problem a completely new challenge or did it already occur previously? In the latter case: how was the problem managed between 1 July 2006 when the RoHS Directive came into force and today?
7. In the request application form it is mentioned that RoHS compliant solders do not make a reliable connection to CCAAs because they dissolve too fast (see 4). Please name in detail the lead-free solders which have been tested and which (quantitative) results have been gained.

8. Given the usual understanding that a shorter soldering time leads to a reduced copper dissolution: Wouldn't it be possible to solve the copper-dissolving problem with an ameliorated time-controlled soldering process?

9. In the request application form the wording for aluminium wires does not include information on the diameter of these wires – in contrast to copper wires. Why does the applicant only refer to the diameter of the copper layer? Is the diameter of the aluminium wire technically speaking unimportant and solely the minimal copper layer has to be kept on the wire (even after the soldering process)?

10. Please check on possible overlaps with request 1 on the use of lead in solders for the connection of very thin enamelled wires with a terminal posted under <http://rohs.exemptions.oeko.info/index.php?id=48>. Also check on overlaps with a request reviewed in a former evaluation (cf. Öko-Institut report 2007 posted under <http://rohs.exemptions.oeko.info/index.php?id=12>; section 5.1).