

## **Specific questions exemption 15**

## "Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages"

The following specific questions should be answered in your stakeholder contribution if you support exemption 15 to be continued / amended / discontinued:

- 1. Please state the **amount of lead** used per application, the lead content in the homogeneous material, the annual production volume as well as the number of applications related to exemption 15 put on the EU market annually.
- 2. What has changed since the **last evaluation** in 2004? In the last four years, lead-free solders have been widely used, and research has been going on. The criteria for an exemption as specified in the results of the previous evaluation might not longer reflect the state of the art.
- 3. Please explain the status of **lead-free solder use** in this application differentiated between lower power and high power flip chip applications.
- 4. Please justify whether or why and in which applications this exemption is still necessary and why **substitution** is technically not feasible. Please refer to the arguments used in the previous evaluation.
- 5. In case an exemption is still required, please provide a **roadmap** with activities, milestones and timelines towards the replacement of lead in these applications.
- 6. Assuming the current exemption will be given an **expiry date**, what date do you think is technologically feasible for industry?