Mondragon Componentes, 02 March 2021

Stakeholder contribution to renewal Exemption 6.b-II **"Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight"** in 2020 Consultation 2.

1. The applicant has requested the renewal of an exemption currently listed in RoHS Annex III with the same wording formulation "Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight"

   a. Do you agree with the scope of the exemption as proposed by the applicant?
   Yes.

   b. Please suggest an alternative wording and explain your proposal, if you do not agree with the proposed exemption wording.
   We agree with the proposed exemption request wording.

   c. Please explain why you either support the applicant's request or object to it. To support your views, please provide detailed technical argumentation / evidence in line with the criteria in Art. 5(1)(a) to support your statement.

All arguments (e.g. the main effect of lead is an improved machinability) given in the justification of the applicants, based on our experience in our production, can be supported by us.
Several alloys are under developing process by aluminium extruders, and we face difficulties in obtaining material for industrial trials. This fact is delaying our own adaptation process making it impossible to reach the current deadline data. A longer period for adaptation will be needed (around 5 years, global approvals included) once a suitable

alloy has been developed, taking into account that, alloys already tested have not given expected results in terms of machinability.

3. The Umbrella Project states that "this renewal request is based on the fact that only a very low amount of leaded aluminium is still required for some niche applications." In the answer to the clarification questions, the Umbrella Project specifies the following exact applications where leaded aluminium alloys are still needed (see the summary above for more details):
    - Cast and machined aluminium gear boxes from handheld tools;
    - Charge holders for MEMS sensor applications;
    - Stand-offs and spacers to electrically connect parts, such as heat sinks, in medical equipment.

    Would it be possible to narrow down the scope of the exemption to these three specific applications? Not in our opinion.

    a. Please explain why you either support or object the proposal to narrow the scope of the exemption to specific applications.

    b. To support your views, please provide detailed technical argumentation / evidence in line with the criteria in Art. 5(1)(a) to support your statement.

As gas valves are guaranteeing safety in appliances (as the company name states precision components), the dimensional aspects of the components must be carefully taken care of. Lead permits and helps obtaining such narrow tolerances as the main effect of lead is improved machinability and less induced stress during machining processes. Lead acts as a lubricant to enable smooth surfaces without flow marks on the machined surface, better chip fracturing to keep swarf short, and less mechanical stress remaining in the machined parts.

    c. If the list is not exhaustive, please specify additional applications for which this exemption is needed.

We would also like to add the following application: Aluminium gas valves for gas control and regulation in gas household appliances, including hobs, free standing cookers, industrial appliances, home comfort appliances and barbecues

5. Please provide any further information and/or data that you think is of importance to substantiate your views.

We are still in migration process from brass to aluminium components, and at the same time trying to adapt to a lead free aluminium alloy. Obtaining good process results, certifications and customer approvals will take at least 5 years, considering free-cutting lead free alloys are supplied on requested dates.
In light of the above, we apply for renewal of the exemption 6(b)-II for category 1 (large household appliances).