

Annex

3. Summary of the exemption request:

In the original exemption request for this exemption, we asked for an exemption until 2025. The time is needed for testing of the reliability of alternative materials, changeover and clearing of the supply chain. The exemption was granted for 5 years, which is the longest possible period. Even though in the meantime alternatives have been found and showed sufficient reliability and durability in tests, we still need a renewal of the exemption to complete the changeover and clear the supply chain. Ignition modules have to be sealed with epoxy resin and therefore cannot be recycled. The renewal allows for the sell-off of units that have already been produced. We don't expect that another extension will be needed after that.

4.A.5. Amount of substance entering the EU market annually through application for which the exemption is requested: <3.5t Pb

Please supply information and calculations to support stated figure.

We estimate that market volume for handheld petrol tools was 4.6 Mio units in the EU in 2016. Each unit contains approx. 0.75g of lead, if lead containing solder is used.

4.B In which material and/or component is the RoHS-regulated substance used, for which you request the exemption or its revocation? What is the function of this material or component?

Lead is a common alloying element in solder material to control the melting point. The existing exemption is based on the time needed for testing and changeover to alternative solder materials. (see Pack 2 – Final Report, Report for the European Commission DG Environment under Framework Contract No ENV.C.2/FRA/2011/0020)

4.C What are the particular characteristics and functions of the RoHS-regulated substance that require its use in this material or component?

We have done testing on alternative materials and will be able to replace the substance. The extra time is needed to complete the changeover and clear the supply chain. Hence force to allow for an overlap of the exemption for a relevant number of lead-free modules in the field, to ensure long-time reliability, and allow sell-off of already produced units at the dealer.

5.1) Please indicate if a closed loop system exist for EEE waste of application exists and provide information of its characteristics (method of collection to ensure closed loop, method of treatment, etc.)

Ignition control modules and similar devices need to be sealed with epoxy resin and therefore cannot be recycled.

Sealing with epoxy resin is necessary because of

- Broad temperature range in operation -30°C ... 110°C
- Vibrations > 80g
- Dielectric strength needed for >30 kV
- Sealing against water (a chain saw has to function under wet conditions)
- Sealing against fuel and oil