

Test & Measurement Coalition

Comments regarding the quantities of the restricted substances relative to the exemption requests in Category 9 products

Summary

Given the large number of products, their complexity, the reliability requirements they need to meet, the long life time and infrequent redesign, Category 9 producers started the conversion of their products to RoHS compliance alternatives already several years ago and well before the publication of the RoHS recast. This proactive and responsible approach of category 9 will allow meeting the deadline of 2017 for compliance with the RoHS restrictions, which would otherwise not be possible if the redesign process starts only now. Due to scale of the T&M Coalition member's portfolios, considerable work has already been undertaken to transition a considerable number of products to meet the substance restriction requirements. Category 9 producers however have made the legitimate assumption that old RoHS exemptions will continue to apply for Category 9. If during the current exemption process, it is not clarified that the old exemptions continue for Category 9, this would mean that all the redesign work has to restart again. This will not only seriously compromise the feasibility of meeting the 2017 deadline but will also penalise the producers who have already invested heavily in RoHS compliance versus those who about to start conversions. Ultimately this will result in substantial costs and delays to many producers and availability to downstream users, without bringing any benefit to environment and health.

Category 9 producers place small quantities of EEE onto the market; according to a UN study Category nine accounts for less than 0.25% of EEE waste in the EU. The objective of the RoHS Directive is to reduce the content of harmful substances in waste from electronic and electrical equipment by restricting these substances and substituting them by safer alternatives, taking into account technical and economic feasibility. The RoHS exemption process should respect the spirit of the RoHS Directive and the principle of proportionality, meaning that it should not go beyond what is necessary in order to achieve the objective of the Directive. Forcing redesign of products which have just been subject to intensive conversion process and qualification is not proportionate to the objective of prevention of hazardous substances in the resulting e waste arising from these products, given the negligible quantities of the substances present.

You can find below some examples illustrating the very low quantities of the restricted substances relative to the exemption requests in Category 9 products. It is important to underline the importance of these substances for the performance and reliability of the products. The risks for environment and health are very low and efficiently managed as these products of up to 30 year lifetime are used in industrial or professional applications and collected in B2B schemes. Early forced redesign of the products goes against the objective of efficient use of resources and extended product lifetime (reuse).

Some data on restricted substances used in the exemption requests has already been supplied. Estimates of quantities by weight of RoHS substances imported that are contained in exempted parts presents great challenges in the supply chain since suppliers rarely provide substance data by

weight but merely the fact that relevant parts are compliant using specified exemptions permitted in the directive and its amendments.

More detailed information is possible where parts are custom designed by Category 9 producers but for each exempted application custom parts represent a small fraction of the total parts using each exemption compared to standard parts obtained from suppliers.

Additional Estimates

Mercury in lamps

Since reporting amount of mercury in lamps are standard requirements in America, suppliers have provided mercury weight information for several years. Based on their data of mercury in compact fluorescent lamps used in display backlights our estimation of lamps containing mercury > 3.5 milligrams is 50,000 lamps totalling approximately 50 grams of mercury placed on the EU market annually.

Lead in glass and ceramic parts

This is the most used exemption in the sector and applies to many component applications using lead in glass or ceramic material such as ceramic packaged components to thick film paste. Our concern is the amended Annex III exemption that excludes use of this exemption in products put on the market in cases of ceramic capacitors with a rated voltage of <120V AC or < 250V DC from 1 January 2013 onwards. These types of capacitors are used in specific Category 9 applications. An example is small surface mount packaged ceramic capacitors that each weighs less than 5 milligram. They have low loss characteristics essential for RF, microwave and high frequency products. From rarely obtainable data the amount of lead is actually 17 micrograms per capacitor. Even if a product contains 100 such capacitors, a single product has less than 2 mg of additional lead with very low environmental impact, probably under 200 grams annually in total EU products placed on the market in Category 9.

In contrast one Member Company produces custom thick film resistors solely for their own products where the lead content is 10% by weight of paste. From their shipment data this accounts for 529 grams annually placed on the EU market which remains acceptable with the current exemption. Clearly other Category 9 producers could add considerably to this figure accounting for a few Kilograms of exempted lead in thick film paste which itself is a small fraction of all the applications but not ceramic capacitors that the revised exemption allows. This should be contrasted with the drastically less amount of lead being requested for inclusion in ceramic capacitors.

Conclusion

The request for specific exemption for category 9 products similar to those previously granted to the other categories would not adversely affect the intent and spirit of the RoHS directive, nor will it have a major impact on the environment. This request is necessary due to an unfortunate timing when category 9 products were brought into scope. We trust that the exemptions can be granted to allow the Test and Measurement companies a reasonable and predictable transition.