

Dear Ms Ehmke,

As a producer of discharge lamps we are very interested in a renewal for RoHS ex.18b for Cat. 11.

In the following we will give you some information why this exemption is still required.

In our opinion, there is currently no real reasonable alternative that could substitute the special requirements of lead-doped BSP phosphor material.

Evaluation of possible alternatives

1. A potentially usable cerium-doped YPO alternative phosphor has unfortunately also disqualified itself for the reason that the ratio for UVA and UVB radiation output is much lower compared to lead-doped BSP phosphor and therefore the needed compatibility and functionality is not given. There are also some other reasons which prevent YPO from being a practical substitution candidate (for example a lack of efficiency evidence for medical applications, availability as a pure rare earth phosphor and much higher costs). It would no longer be possible to assume that the tanning market, therapeutic lamp users (PUVA lamp) would be supplied in a permanently safe and, from a price point of view, economical manner.
2. High-pressure lamps as a possible alternative require a completely different device design and therefore cannot be used as replacement in existing devices for low-pressure lamps. Corresponding systems with high-pressure lamps (for example face tanning units) must be equipped with appropriate filter disks for safety reasons (too high UVC and UVB output) and are inferior to low-pressure lamps with BSP phosphors in terms of energy efficiency and thermal power loss. They are also significantly more expensive and not suitable for medical phototherapy appliances to our knowledge in the foreseeable future.
3. Theoretical also LED-technology could be a possible option for replacing lead-doped BSP phosphor for tanning and phototherapy. However, no specific LED solution is known at this time that would be suitable for general use / replacement business for the corresponding use

cases of the exemptions on the market. The efficiency especially on UVA-LED is currently still too low to use it for a replacement of existing solutions

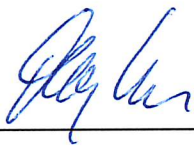
Should UV lamps with BSP phosphor no longer be available, several economic sectors could be severely affected, as it is currently not technically and/or financially feasible to replace or retrofit the existing equipment with effective and compatible alternatives.

In addition, the discontinuation of these products would result in a massive economic and personnel cuts for UV-lamp-companies, as this decision would probably result in a relocation of production and sales to countries outside the EU with less restrictive regulations.

As we are a (contract) manufacturer, a de facto ban on the lamps in question by not renewing these exemptions would have drastic consequences for our company, ranging from the closure of dedicated departments to the continued existence of the entire company.

As there will be no adequate alternatives for some applications of the current exemptions in the foreseeable future, an impending ban could also have very negative impacts on the distributors, users (e.g. tanning salons) and end users of these special lamps.

In summary, it can be said that there is no replacement luminescent material for BSP and that the LED technology is not yet fully developed and is currently not an economical alternative.



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