Statement on the occurrence of per- and polyfluorinated alkyl substances in KEBA products

KEBA is an internationally active company that develops automation solutions for a wide range of sectors such as industrial, banking, service and energy automation and, like all companies in the electronics sector, relies on Per- and Polyfluorinated Alkyl Substance (PFAS) applications.
Sometimes we know where PFAS are used in our products, but sometimes we don't and can only make assumptions. **A large part of the PFAS in our products are used in semiconductors, printed circuit boards, cables and various plastics, but also in batteries and processing aids.**
In the case of processing aids (such as lubricants containing trans-1,3,3,3-tetrafluoroprop-1-ene or PTFE), it is still easiest to switch to substitutes and we are also endeavoring to replace these as soon as possible.
Where substitution is currently not possible and on which the entire electronics industry depends, are of course **semiconductors and printed circuit boards (PCB)** for whose production PFAS are needed. In the photolithography process, there are no suitable alternatives so far, apart from the fact that the PFAS compounds are converted during semiconductor production and do not remain in the product (or to a very small extent). For the manufacture of PCBs, PFAS are necessary to achieve a low dielectric constant, a separation of high voltage components and, due to their repellent properties of moisture, a low variation of conductivity. We rely on our suppliers for semiconductors and PCBs, but it would have far-reaching consequences if there were supply shortages due to the PFAS restriction. In the worst case, this would lead to a complete loss of production.
Important materials affected by the PFAS restriction are the fluoropolymers. We use **fluoropolymers** mainly in **cables and connectors**. Here PFAS can be found in cable sheathing (PTFE), tape (PTFE), seals (FKM, PTFE), cable glands (PVDF) and more. PFAS are used here because of their excellent properties, such as their dielectric and mechanical properties, thermal stability especially with regard to reducing electrical losses, temperature fluctuations over a wide range, their resistance to aggressive media and because they enable a long product life. **The available substitute materials cannot combine the wide range of properties in one product and cannot fulfil certain properties at all. PFAS polymers are high performance thermoplastics that allow for a certain level of product safety that other materials cannot offer. We would also have to use partially unsuitable materials in the manufacture of our cables, which would compromise function and safety.** Other applications of fluoropolymers in our products that we are aware of are sealing materials that have to withstand aggressive media and high mechanical loads.
We also use **batteries containing PVDF or PTFE** as binders in some of our products.
For the most part, however, we do not know where PFAS are hiding in our products, such as flame retardants of the PFAS group, which are often used in many plastics (polycarbonate, ...).

We fear that the broad restriction could lead to many delivery failures of components in the next few years where we and our suppliers do not yet know that PFAS are used, or we will have to switch to substitute materials within a very short time, which in turn will have to go through a long testing and approval process due to product requirements (mechanical and temperature resistance, EMC, UL94-V0, ...) and certifications. **It is to be feared that the product quality and safety will suffer greatly from the restriction and the compulsion to switch to unproven substitutes within a very short time** and that, under certain circumstances, the proper functioning of our products can no longer be guaranteed. With the known PFAS occurrences in our products alone, we would have to carry out redesigns over our entire product range, which would be lengthy, very costly and there is a risk of regrettable substitution. Since many resources (staff hours, test laboratories, ...) would be consumed for redesigns, this would hinder and delay the development of new products. We would be dependent on our suppliers to find viable substitutes as quickly as possible, which is almost impossible in the short time available and given the high demands on material properties.

If suitable alternatives become available in the future, we will of course use them for new developments, but until then PFAS applications in the electronics industry should fall under "essential use" and there should be the possibility for exemptions. However, if the restriction proposal is implemented as planned, the competitiveness of European companies in the global market will be severely jeopardized and they will be threatened with closure or migration to the non-European market.