

BeST comments on EPEAT

Introduction

The Electronic Product Environmental Assessment Tool (EPEAT) is a Type 1 ecolabel originally developed by the United States (U.S.) Environmental Protection Agency (EPA) for use by U.S. Government Authorities to identify and procure environmental preferable electronic products. EPEAT applies to products in the IT sector, providing criteria covering products such as computers and displays, imaging equipment, mobile phones, televisions, servers, etc. EPA transferred ownership and operational authority of EPEAT to the Global Electronic Council (GEC) which manages and sets policies for the EPEAT ecolabel as well as participates in the development of standards containing product criteria for the products covered by EPEAT. Additionally, GEC maintains the EPEAT registry of conformant products.

BeST's position:

The GEC is currently participating in the review of the criteria in standards for several of the covered products as well as developing new criteria that will be applied to EPEAT covered products in the future. One of these is an optional criterion on the restriction of beryllium. As an optional criterion, manufacturers are not required to comply with this criterion and can choose to utilise beryllium-containing materials in their products as needed and without penalty. However, BeST does not support the inclusion and use of a criterion which could restrict the use of beryllium-containing materials in IT products and one member of BeST is actively engaged in these discussions. As part of this engagement, the BeST member has submitted comments recommending that the criterion be removed and highlighting the importance of:

- Risk instead of hazard

The raw materials used to produce innovative, efficient, and high-tech IT products feature unique and unmatched properties which make them one of the best suited materials to achieve the desired performance and longevity of the product. When considering regulatory and non-regulatory measures applicable to these materials, a risk-based approach is the efficient streaming tool to use where both hazard and exposure are considered: Risk = Hazard x Exposure. On the contrary, the use of a hazard-based approach would jeopardise the performance of the products by promoting the phasing out of materials that are used safely based solely on their hazardous classification.

For example, the beryllium-containing materials used in computers pose no risk in computer technology and are safely managed throughout the supply chain and life cycle of computers.

- Understanding the link between raw materials and the performance of products

When introducing regulatory measures impacting the use of raw materials in specific product categories, a clear understanding of the properties of these materials and their contribution to the performance and longevity of the products that contain them is of vital importance.

The continuous trend in the design of electrical and electronic equipment (EEE) is for miniaturisation of components, including connectors, to decrease the overall size or weight and provide higher performance capability in the product, while maintaining connector reliability.

Considering these objectives, beryllium is an important and fundamental raw material used by EEE manufacturers in the form of copper-beryllium (CuBe) alloy. Indeed, CuBe alloys present excellent strength and formability, and therefore offer the product designer the flexibility to employ smaller sized terminals and contacts while still obtaining the required reliability and performance. CuBe alloys used in springs, switches, and terminals of electrical connectors allow manufacturers of computers, cell phones, telecommunications equipment, and other electronics to produce products to enable societal well-being. CuBe alloys also allow miniaturisation and energy conservation while fighting planned obsolescence, in particular in computers, cell phones and home appliances.

- Acknowledging that substitution will potentially lead to loss of performance

Regulatory and non-regulatory measures that propose restrictions and substitution of specific substances used in product categories will produce unintended and regrettable consequences with potential substitution of materials with less-performing materials and higher negative environmental impact.



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The performance benefits of beryllium-containing alloys have been studied and confirmed. Indeed, several studies performed have demonstrated that potential substitutes for copper beryllium alloys do not provide the same level of performance to CuBe alloys.

Conclusions

BeST will continue to engage in the discussions on EPEAT criteria to demonstrate the safe use and beneficial impact of beryllium in IT products.

BeST

The Beryllium Science and Technology Association (BeST) represents the manufacturers, suppliers and users of beryllium metal, beryllium containing alloys and beryllium oxide ceramics in the EU market. BeST has the objective of promoting sound policies, regulations, science and actions related to the safe use of beryllium and to serve as an expert resource for the international community on the benefits and criticality of beryllium applications. It is also the objective of BeST to promote good practices in the workplace to protect workers handling beryllium containing materials.

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