

Advanced Materials Act BeST Position Statement

Beryllium (Be) is a metal with unique properties that offers great potential in the development of advanced materials and their applications. BeST therefore applauds the EU intentions to promote advanced materials research and development. At the same time, BeST wants to recommend the following.

- **Focus on technological development** and let it not be hindered by other policy objectives like the restriction by origin of materials, the substitution of critical raw materials, of hazardous substances a.o.
- **Acknowledge the uniqueness of materials**, which implies that each will have its own realities with respect to extracting, processing, recovery and recycling.
- **Support demand driven development.** Market needs should define the research and development of advanced materials. These markets can be government dominated, like defense.

There is no production of Beryllium in the EU. Considering the combination of high investment of setting up production and the small market size, investments in production are not economically feasible and unlikely to happen. At the same time, the use of Beryllium in advanced materials may offer unique opportunities in terms of applications and products. Beryllium is already used in many high-performance metallic alloys and developments are still possible. It would be a missed opportunity if Beryllium would not be used in the EU advanced materials development program on the grounds of the origin of the material, namely Japan, Kazakhstan, and U.S.

Like 80% of the metals, Beryllium is classified as hazardous substance. As a result, Beryllium has been evaluated under REACH and the conclusion was that the use of the material only produces a risk limited to the workplace, by inhalation of fine particles. This risk is properly addressed by the introduction of a mandatory EU Occupational Exposure Limit and good practices, which efficiently control workers' exposure. We therefore strongly oppose any restriction on the use of Beryllium in advanced materials development programs, due to its hazardous properties. This would unjustifiably undermine the existing regulatory framework.

Improving the circularity of Beryllium has its limitations. Beryllium tends to give new properties to alloys in small quantities. In the most used alloy, copper-beryllium, the content of Beryllium is low, usually between 0,5% and 2,0 %. This makes recovery of the isolated beryllium element from alloys economically and environmentally not feasible. However, pure beryllium metal can certainly be recovered and recycled, and considering the materials high price, this is a standard practice in the industry. Even more difficult to recover is when Be is used as an additive to AlMg, Mg and Cu alloy – few ppm (parts per million) are sufficient to improve properties and yields, saves energy and enable EU industries to compete in the world or recycle in these in the EU at all.

A large part of the recovery of Beryllium is through the recovery of production scrap of copper-beryllium alloys. Considering its small market size and hazardous properties, which require specific handling, recovered beryllium-containing materials are recycled in closed loops, only in a few places by its producers, and these are outside the EU. An investment of scrap recovery in the EU is due to these circumstances unlikely.

The Beryllium sector remains enthusiastic about the development of an EU action in support of advanced materials and is eager to contribute.



Beryllium Science & Technology Association

About 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.