

Brussels, 20 January 2020

Comments on New Circular Economy Action Plan

Introduction

BeST¹, the representative body for the Beryllium industry in Europe, welcomes the European Commission Communication announcing a New Circular Economy Action Plan. The government plays an important role in promoting sustainability and the aspect of circularity should be an important component in its policies.

Below are some comments on the relevance of circular economy measures to the Beryllium sector. They are accompanied by recommendations of actions to take and to avoid as regulator.

Relevance to the Beryllium sector

- Consider the value chain

Beryllium is an element that is used in the production of a great variety of products, due to its unique combination of properties; cars including Electric Vehicles, satellites, home appliance, mobile phones, airplanes, etc. A rule governing any of these products could well have an effect on the use of beryllium or any other substance for that matter. Many times, the aim of the rule is even to affect the use of a substance in a product.

- ⇒ We recommend policies to consider their impact to the entire value chain so as to avoid any unnecessary disruption of for example raw materials markets.

- Critical Raw Materials

Beryllium is classified as a *Critical Raw Material* by the European Commission. The Commission has considered that Beryllium, together with 27 other substances, has a particularly high value for the European economy. It enables the production of high technology products in several sectors. It also considers that there is no substitute for Beryllium and that their supply to the EU should be secured and promoted.

- ⇒ We recommend policies aimed to promote the Circular Economy not to lose sight of the classification of Beryllium as Critical Raw Material and that any new rule should not undermine the policy objective to ensure supply of Beryllium and other CRMs to the EU Single Market.

- Alloys – limitations on circularity

Beryllium is used as a minor alloying element, such as Copper-Beryllium alloys, to give the material unique properties. In the case of Copper-Beryllium alloys, beryllium increases strength to the otherwise soft Copper, while maintaining its high electric conductivity. Up to 2% of Beryllium is added to provide these unique properties to Copper. Copper-Beryllium therefore saves the use of resources, but the small size of the Beryllium in compounds makes recycling not viable. Production scrap is however collected by the EU beryllium industry and recycled (about 20% of global demand). It should also be noted that Beryllium from recycling of articles containing Copper-Beryllium alloys has no negative impact on the purity of recycled copper.

Furthermore, Beryllium is necessary in the recycling of Magnesium and Aluminium Magnesium containing alloys (light metals used by automobile industry to save weight and energy). Beryllium is used as an additive to prevent molten Magnesium and its alloys from catching fire during the recycling stage. Without Beryllium, there would be no production or recycling of these light weight metals in Europe. In these applications, the addition of few ppm of Beryllium is a requirement for safety, commercial and technical effectiveness.

The Beryllium case is not unique. Many minor metals bring unique properties to alloys and the quantities are often such that recuperating the minor metal is not viable.

¹ BeST - Beryllium Science & Technology Association – represents the suppliers of beryllium metal and beryllium containing alloys in the EU market and has the objective of promoting sound policies, regulations, science and actions related to the 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, in order to protect workers handling beryllium containing materials.

⇒ We recommend policies not to limit in any way the use of minor metals like Beryllium in alloys as they bring benefits other than in terms of recyclability or circularity in general.

- Safety and performance

Beryllium has unique properties that make a number of products safer. For example, Beryllium-containing alloys continue to perform effectively over a wide range of temperature fluctuations. Therefore, Copper Beryllium is the material of choice for connectors in automobile safety systems such as Antilock Braking Systems (ABS) and airplane “fly-by-wire” cabling.

The fact that Beryllium and Copper Beryllium are less sensitive to temperature changes makes them function for longer time periods. For example, a Copper Beryllium connector in an aircraft can effectively function for the life of the product or equipment which in some cases could be up to 50 years. In general, Beryllium and Copper Beryllium components make products last longer, which should be a policy objective in any circular economy plan. Furthermore, Beryllium-containing alloys foster miniaturization and reduce raw materials utilization.

⇒ There are arguments for using substances that override the argument of circularity. Policies should not encourage to produce either less safe or less performing products but should allow markets to choose those substances that perform best.

- Consumers

Beryllium is a substance that represents little or no health risk to consumers when used in products. According to EU regulators, the only health risk associated with beryllium is at the workplace. The same applies to many other metals.

⇒ Consumer information on substances would have wrong consequences of alerting consumers for no reason.

It should be noted that Beryllium is not a Substance of Very High Concern under the REACH Regulation, i.e. Beryllium is not included on the ECHA candidate list. The term “substances of concern” used in the EU communication is not sufficiently defined and needs to be clarified.

- International

We support the European Commission’s careful consideration to the international aspects of any measure aimed at creating a circular economy and its recognition of the potential negative effect of EU measures in international context.

The use of Beryllium in the EU will be affected by regulation and will depend on buyers or suppliers wishing to invest in compliance of new regulation such as those that may derive from the Circular Economy Action Plan. As Beryllium is, like most other Critical Raw Materials, not mined in the EU, the risk of production moving out of the EU is therefore higher.

⇒ Circular Economy initiatives should not lead to production or other parts of the value chain moving out of the EU. This applies in particular to Critical Raw materials.

Regarding Beryllium, it should be noted that production scrap are collected from users by EU suppliers and sent to Japan or US for recycling. Eventual new regulations on “export of wastes” must not affect this process which benefits circular economy and environment.
