Position on Single-use plastic beverage bottles – EU rules for calculating, verifying and reporting on recycled plastic content

German Construction Chemicals Industry Association (Deutsche Bauchemie)
Feedback on draft SUPD IA

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Ensuring more sustainable and climate resilient buildings and infrastructure and at the same time mobilising the industry across all key sectors for a clean and circular economy are two of the central priorities of the European Green Deal[1] aiming to achieve climate neutrality by 2050. The new Circular Economy Action Plan[2] will promote circularity in industrial processes focusing actions on resource-intensive sectors such as construction, plastics, electronics and textiles, while the Green Deal Industrial Plan[3] will accelerate the transition to climate neutrality technologies and products required to meet Europe's ambitious net-zero targets.

The use of renewable and/or recycled feedstocks (i.e. alternative feedstocks) in the chemical production of construction products can play a paramount role in reducing dependencies on virgin fossil resources, therefore contributing to the reduction of greenhouse gas emissions[4]. On the other hand, enhancing recycling processes and responding to the need to shape new material cycles with innovative technologies is crucial for meeting sustainability objectives and facilitating the Union's chemicals industry's transition to circularity while maintaining high quality and performance.

Chemical recycling and especially the mass balance (MB) model, as defined in ISO standard 22095, is a credible and well-established chain-of-custody (CoC) model, widely adopted across various industries and essential for facilitating a smooth and swift transition, leveraging existing infrastructure to enable the co-processing of alternative feedstocks. Current international guidelines provide principles and procedures for incorporating mass balance into Life Cycle Assessment (LCA) and Greenhouse Gas (GHG) modelling. Additionally, several international standardisation efforts are ongoing to refine these guidelines and ensure a consistent approach.

As such, the German Construction Chemicals Industry Association supports the EU Commission´s efforts to establish mass balance accounting rules by enabling chemical recycling pathways under the draft Single Use Plastic Directive (SUPD) Implementing Act (IA).

However, we would like to draw your attention to the fact that, indeed, not all industrial branches and value chains can currently benefit from dedicated (segregated) production systems to answer customer demand for products made with alternative feedstocks, which hampers the acceleration of the circular economy in a unilateral way. A striking example is the ongoing debate on the acceptance of MB CoC in the construction chemicals sector, especially the recognition of MB *credit method* as a method to substitute fossil resources with bio-based or recycled feedstocks in Type III Environmental Product Declarations (EPDs) according to ISO 14025, and in the underlying LCA calculation method based on EN 15804.

Mass balance is also relevant to other industries and pertinent to any policy legislating alternative feedstocks or other CoC. Thus, a horizontal recognition of MB methods across sectors shall be the target in Europe and should be equally considered for the construction industry. In this regard, the proposed SUPD IA does not sufficiently consider the full potential of established industry processes and fails to reflect broader applications, which undermines the role of recycled feedstocks in the material route (through co-processing) and its contribution towards recycled content targets. The restrictions related to the recycled content eligibility threaten the economic viability of using waste-derived feedstock and deter MB from being the lever necessary for the chemical industry's transition.

A scenario without horizontal recognition of MB credit method, i.e. sector-specific regulations that allow the method in some sectors and restrict or forbid it in others, could ultimately lead to barriers of trade. In such a scenario, the use of alternative feedstocks in some industrial sectors, which allow MB credit method, would be advantageous over other ones, where the principle is not allowed or recognised. Consequently, circular material flows would be unilaterally carried over artificially to sectors where MB credit method is allowed, while at the same time creating discrepancies between methods or - worse still - getting lost along the material flow route in sectors where MB is not recognised. Contrary to the scenario introduced in SUPD IA, establishing a horizontal guideline for MB CoC models would, therefore, facilitate the effective cross-market integration of bio-based and recycled materials, enable optimization through market dynamics and support sustainability objectives such as enhanced circularity and economic efficiency.

Moreover, in order to secure trustworthiness towards market and downstream users, protecting end consumers from encountering confusing or misleading information, while at the same time reliably preserving the reputation of the MB methodology, a horizontal MB guideline should fulfil some fundamental minimum prerequisites:

- Horizontal terminology for CoC methods containing harmonised definitions and MB calculation rules: For instance, the definition of mass balance accounting under Article 1 (11) of the draft SUPD IA is not aligned with that of ISO 22095; hence, it does not acknowledge the nature and intent of the principle. It also would not apply to alternative feedstocks beyond those which are recycled. On that account, an alignment should take into consideration that the amount of alternative feedstock used in the mixed input will typically vary across different outputs. Another example regards the maximum mass balancing period of three months under Article (7) of the SUPD IA, whereas, for example, the core rules for creating EPDs for construction products foresee representative LCA-relevant process-specific operational data covering a time period of one year.
- Additionally, any attributed amount of input with specified characteristics to output materials shall be communicated in a transparent manner by using trustworthy claims substantiated by widely recognized 3rd party certification schemes (e.g. ISCC+, REDcert2).
- To uphold credibility and prevent the risk of greenwashing, double counting should be avoided with clear statements that the calculation is based on a MB credit method.

The above would empower consumers to correctly interpret MB claims and make informed choices in alignment with their values.

The mass balance credit method is a key enabler to process sustainable feedstocks together with fossil ones in existing complex chemical production networks accelerating the transition to a circular economy without compromising end-product quality and performance. The principle of the MB credit method is already established in other sectors like the wood industry applying 3rd party certification schemes, therefore, the acceptance of MB accounting in the proposed SUPD IA could be a starting point for its recognition within construction. Its acceptance could boost the supply of more sustainable construction products while utilizing

existing infrastructure, making it a central driver for an immediate and smooth transition to circular models with direct environmental benefits at limited costs for society (e.g. curbing CO_2 emissions, reducing waste incineration and landfill) and, ultimately, contributing to the Green Transition of the construction sector by aligning with the Green Deal ambitions. It is important, however, to point out that, in order to allow downstream users to source and benefit from MB credit method and to foster a fair competitive environment and level playing field, the approach should be accepted horizontally with accounting rules tailored to the respective alternative feedstocks and industries.

[1] COM(2019) 640 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2019%3A640%3AFIN

[2] COM(2020) 98 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN

[3] COM(2023) 62 final, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023DC0062

[4] JRC (2021): Environmental effects of plastic waste recycling; JRC (2022): Environmental and economic assessment of plastic waste recycling; nova institute (2022): Renewable Carbon as a Guiding Principle for Sustainable Carbon Cycles

Deutsche Bauchemie e.V.
German Construction Chemicals Industry Association

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The German Construction Chemicals Industry Association (Deutsche Bauchemie) has been representing the interests of its member companies and the German subsidiaries of foreign corporations to the professional public, politics, authorities, science, and media for 77 years. The industrial association is a sector association within the German Chemical Industry Association (VCI). In 2024, the approximately 140 member companies generated a turnover of 4.6 billion euros in Germany with around 32,000 employees.