Metal Packaging Europe

6 September 2024

## Notification Number: 2024/0307/NL (Netherlands) Amendment of the Commodities Act Regulation on packaging and consumer products

The European can making sector consists of 750 companies, of which 90% are SMEs and employs 177,000 people. Production for the beverage, food, health & beauty, household and industrial markets in Europe is 98 billion units per year.

The draft Amendment of the Commodities Act Regulation is not the most appropriate or realistic way to control consumer exposure to metals coming from metallic food packaging. Not only would it fail to properly protect consumers, but it would also:

- introduce significant complexity and cost to the supply chain for canned/jarred food and beverages
- it would lead to significant workload for control authorities without any commensurate improvement in consumer protection
- it would lead to a distortion in the market as the, at best, partial implementation of control measures would be applicable disproportionately to industry in and around the Netherlands

An acceptable means to control consumer exposure to metals in foods already exists in the Contaminants Regulation without the flaws and disadvantages that are inevitably introduced by the approach used in the draft measure
The release of metals into food/drink from metal packaging such as metal cans is not migration (a purely physical phenomenon), but rather it is an electrochemical process (corrosion) that is heavily dependent on the chemical nature of the food/drink, the presence of oxygen or other oxidants in the can as packed, the thermal process conditions and the storage conditions. Migration testing in the laboratory using simulants and test conditions developed and validated for plastics food contact materials and articles (FCMA) are not appropriate for measuring metal release and will give erroneous and misleading results.

Unlike the majority of starting substances for plastics FCMA, metals are to a large extent ubiquitous in the environment and in the food chain which means that finding traces of metals in packed food does not necessarily mean that the packaging is the source. As it is not possible to predict metal release into canned foods by laboratory testing with simulants and as metal release is greatly dependant on the internal environment within the can, the only way to reliably assess the potential for metal

**Metal Packaging Europe GIE**

Avenue des Arts 41
1040 Brussels
Belgium

**E** info@metalpackagingeurope.org
**T** +32 2 897 04 90
**W** www.metalpackagingeurope.org

release is by undertaking test packing under commercial conditions where the initial level of the various metals in the food before packing is known.

Consumer safety with respect to ingestion of metals in food/drink is entirely dependent on the level of metals in the food as consumed. The sources of the metal are not relevant and indeed in most cases there will be multiple sources contributing to the overall level of metals in food - putting controls in place only on certain potential sources (i.e. Metal packaging) does not on its own ensure consumer safety. It is our opinion that setting Specific Release Limits (Specific Migration Limits have no meaning for metals as the rate limiting factors are electrochemical not purely physical migration) is not the most appropriate way to control consumer exposure to metals from food in metal packaging. It would be much more efficient and effective to set limits for metals in food as sold to consumers as that would ensure consumer protection from metal exposure from all sources in the food, not just from the packaging. It would allow all the factors that control the final level of metals in food as sold (levels in the raw foods, food additives, make-up water, bulk storage equipment, food processing equipment, packaging as well as filling conditions and shelf life) to be addressed by one measure.

The most significant factors regarding metal release that the metal packaging manufacturer has control of are the purity of the metals used and the effectiveness of the internal protective coating applied to the majority of metal food packaging (>90%). The < 10% of metal packaging that does not have a protective internal coating is used either for dry foods where metal release cannot occur or for a small range of specific foodstuffs (white fruits, tomato-based products, some soups and vegetables) where the electrochemistry of the food is such that uncoated cans are the most effective packaging. In all cases, the metal used for uncoated cans is tinplate (tin coated steel) where the food contact surface consists of tin for which the level of release into foodstuffs is specifically controlled by the EU "Contaminants" Regulation (EU) 2023/915, and for which there exist internationally recognised standards on tin for steel packaging such as EN 610:1995. For the majority of cans where there is an internal protective coating, the integrity and effectiveness of the coating is vital to avoid corrosion of the metal packaging and potential perforation. For this reason, the industry has always ensured the effectiveness of the internal coating through rigorous qualification procedures, pack testing and quality control during production. Because of this, the potential levels of release of the main structural metals (Fe, Sn, Al) are well controlled and below the relevant existing regulatory limits.  Control of the purity of the metals used help to ensure that any trace metallic impurities cannot be released into food at levels that could be harmful to consumer health. Imposing SRLs on metals will not impact on consumer safety and would be impossible to enforce. We believe that setting contamination limits in

food as sold for the metals of toxicological concern and allowing industry to continue to use metal purity standards to control potential contamination is the most effective and efficient way to protect consumers.

Based on the above, MPE proposes the following principles and good practices to be reflected and included in the amendment of the Dutch food contact legislation:

- For metallic food packaging materials, release limits and their control are only applicable to cans that do not have an internal protective coating, these are the only applications of metallic food packaging materials that have relevant release of metals into food
- Worst case calculation based on the purity of metals used in metal packaging is the preferred method to demonstrate compliance to the proposed limits as testing with simulants is not appropriate for metal food packaging materials. The migration of organic chemical substances and release of inorganic chemical substances are fundamentally different.
- For metallic food packaging materials (steel and aluminium), pack testing is the only appropriate valid testing procedure to validate compliance of limits for inorganic chemical substances.

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