

Reducing Plastic Waste with Standards

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Abstract

One method to solve the problems brought on by plastic pollution is through standards. By addressing quality, safety, information, and measurement as well as information and measurement, standards can help to support the transition to a circular economy for plastic resources by minimising diversity and boosting compatibility. This project's objectives included categorising current plastic standards within a framework for the circular economy, locating potential gaps, and highlighting prospective areas for standardisation in the future. Using desktop research on current standards, 95 plastic standards were found, just 9 of which are Australian standards. Most of the standards talk about recycling and biodegradable or compostable plastics. There are several chances to develop standards for waste levels higher up the plastics hierarchy, such design and reuse.

Keywords: Pollution • specifications • Standards • Debris

Introduction

The detrimental impacts of plastic pollution on the environment, economy, and wildlife have been amply documented. There is broad agreement that plastic pollution is a global problem, as shown by the pact that was signed at UNEA 5. A multilateral strategy incorporating various supply chain actions will be required to solve the issue. One element of this comprehensive strategy that has been proven successful is the application of standards. The International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) define a standard as a "document established by consensus and approved by a recognised body that provides, for common and repeated use, rules, guidelines, or characteristics for activities or their results, aimed at achieving the maximum degree of performance."

Literature Review

On the basis of consensus, balance, and transparency, standards are important norms and codes of conduct that are widely adopted by business and communities. A number of factors, including as better safety, decreased information asymmetry, expanded global trade, and improved technology interoperability, can help society and the economy as a whole. Standards can, either directly or indirectly, promote sound environmental management practises and assist in identifying, resolving, and easing environmental problems..

Companies and organisations can manage their environmental responsibilities with the support of standards and useful tools provided by the ISO 14000 series: Environmental Management, for instance. By offering pertinent guidance, frameworks, and specifications that assist in the assessment of the plastic life cycle and the expansion of the market for recyclable and reusable items, standards can help governments and

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policymakers set and meet ambitious goals to minimise plastic waste. Standards for terminology and classification, for instance, can enhance information flow, facilitate commerce, and improve communication among market participants. To promote uniformity and lessen confusion for consumers and business, it is essential to utilise a common and accepted set of terms. Different types of plastics are defined by information and characterization standards, which also lessen information asymmetry.

Discussion

Measurements and procedures By describing the sampling and testing procedures for gauging the environmental and sustainability elements of plastics, standards can aid in the dissemination of knowledge. Life cycle assessment standards offer a method for assessing a product or organization's resource and environmental efficiency, as well as for boosting productivity and market efficiency. Consumer confidence and societal acceptance of recycled items can both benefit from quality standards. Additionally, they can enhance scale economies, the infrastructure for low-cost plastic recycling, and information diffusion. Standards ought to be taken into account as part of the plastics problems' solutions as a result. This necessitates a sizable investment in the creation and adoption of standards that address the difficulties and requirements of moving away from the manufacture and consumption of goods with poor potential for recycling and reuse [1-5].

Conclusion

The bulk of current plastic standards fall into the value chain segments of recycling and recovery/disposal when seen through the lens of the circular economy. Early sector standards, such as those for design or feedstock/raw materials, are extremely scarce. A few standards are included under the design category as secondary, however they mainly deal with how to design a product that will be composted or utilised for waste to energy. As a result, plastics standards continue to be placed at the bottom of the trash hierarchy. The standards we see in this area often deal with test requirements and labelling, while they may conceivably be used to prevent, reduce, or reuse waste in the manufacturing setting. Nevertheless, the overall total.

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Conflict of Interest

There are no conflicts of interest by author.

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