Title: Establishing an Environmental Label Criteria Based on Life Cycle Assessment for Hard Surface Cleaners

Abstract:

Environmental problems caused by rapid population growth and uncontrolled resource consumption have become a trending topic in the world. It is necessary to find the balance between competing needs and ecology while raising public awareness to solve environmental issues. Action in response to this awareness and balance has been taken by strategies such as United Nations Sustainable Development Goals (SDGs) and The European Green Deal (EGD). Responsible production and consumption, which is SDG 12, aims to reduce the ecological footprint by changing the way of producing and consuming goods and resources, and EGD targets to create a circular economy action plan for a more sustainable industry by achieving a zero-waste goal. In line with these objectives, the green and sustainable application of goods and services that meet high environmental standards throughout their life cycle is granted with environmental labels. Environmental labels provide information about a product or service in terms of its overall environmental benefits, such as the recyclability of its packaging, or the absence of noxious ingredients. However, the increasing proliferation of such labeling has led to concerns regarding greenwashing and exaggerated marketing claims. To avoid these biases, Life Cycle Assessment (LCA) became a necessary action while setting criteria in environmental labeling with a scientific approach. The Ministry of Environment, Urbanization, and Climate Change grants the environmental label based on the established criteria for a particular item or service, following the EU Eco-Label. The purpose of this thesis is to establish LCA-based environmental label criteria for hard surface cleaners in the Turkish market.

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