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Acc4emic INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“INTEGRATING CLEANER PRODUCTION INTO SUSTAINABILITY STRATEGIES”

Inventory Analysis for the Life Cycle Assessment of Packaging for Soft Drinks

PRADO, M.R. ^{a*}, KASKANTZIS NETO, G. ^b

a. Universidade Tecnológica Federal do Paraná, Curitiba-PR

b. Universidade Federal do Paraná, Curitiba-PR

**Marcelo Real Prado, mrealprado@utfpr.edu.br*

Abstract

The knowledge of the life cycle of a product is the first step in the search of the sustainable development. The present work had as objective to make an analysis of material and energy flows of the life cycle of three types of packaging for soft drinks: glass bottles, aluminum cans and bottles of PET. The study considered processes since the extraction of raw materials for production of the packaging until the stages of recycling, after the consumption of the soft drink. They had been identified and quantified the main critical points of generation of negative environmental impact during the life cycle of each packaging. The consumption of natural resources and energy, the generation of atmospheric emissions, solid wastes and wastewaters had been the analyzed categories. The results showed that, in accordance with the scenes and defined variables, the bottle of glass presented a less favorable scene to the environment in comparison with the other packaging.

Keywords: *life cycle assessment, packaging, soft drinks, sustainable development.*

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