A multi-commodity production and distribution

model in Supply Chain^{*}

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Abstract

Due to theoretical and practical importance, multi-commodity production and distribution problems have attracted much attention. In this paper, we consider a multi-commodity production and distribution problem which involves the multi-commodity supply chain network of raw material suppliers, plants, DC and customers. In order to solve the problem, we formulate it as a mixed integer linear program and solve it by using Benders decomposition method. In addition, we also consider a generalized multi-commodity production and distribution problem.

Keywords: Supply chain, multi-commodity production and distribution, Benders decomposition method.

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