




A Generic Materials and Operations Planning Approach for Inventory Turnover Optimization in the Chemical Industry

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Abstract

Chemical industries usually involve continuous and large-scale production processes that require demanding inventory control systems. This paper aims to show the results of the implementation of a mixed-integer programming model (MIP) based on the Generic Materials and Operations Planning Problem (GMOP) for optimizing the inventory turnover in a fertilizer company. Results showed significant improvements for Inventory Turnover Ratios and overall costs when compared with an empirical production planning method.

Keywords

Inventory turnover Production planning GMOP Fertilizers Chemical industry
Optimization