

Accepted Manuscript

Title: Xanthan gum as a rate-controlling polymer for the development of alcohol resistant matrix tablets and mini-tablets

Authors: Alessia Lazzari, Peter Kleinebudde, Klaus Knop



PII: S0378-5173(17)31141-9
DOI: <https://doi.org/10.1016/j.ijpharm.2017.12.014>
Reference: IJP 17206

To appear in: *International Journal of Pharmaceutics*

Received date: 20-9-2017
Revised date: 8-11-2017
Accepted date: 5-12-2017

Please cite this article as: Lazzari A, Kleinebudde P, Knop K, Xanthan gum as a rate-controlling polymer for the development of alcohol resistant matrix tablets and mini-tablets, *International Journal of Pharmaceutics* (2010), <https://doi.org/10.1016/j.ijpharm.2017.12.014>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Xanthan gum as a rate-controlling polymer for the development of alcohol resistant matrix tablets and mini-tablets

Alessia Lazzari¹, Peter Kleinebudde¹, Klaus Knop^{1,*}

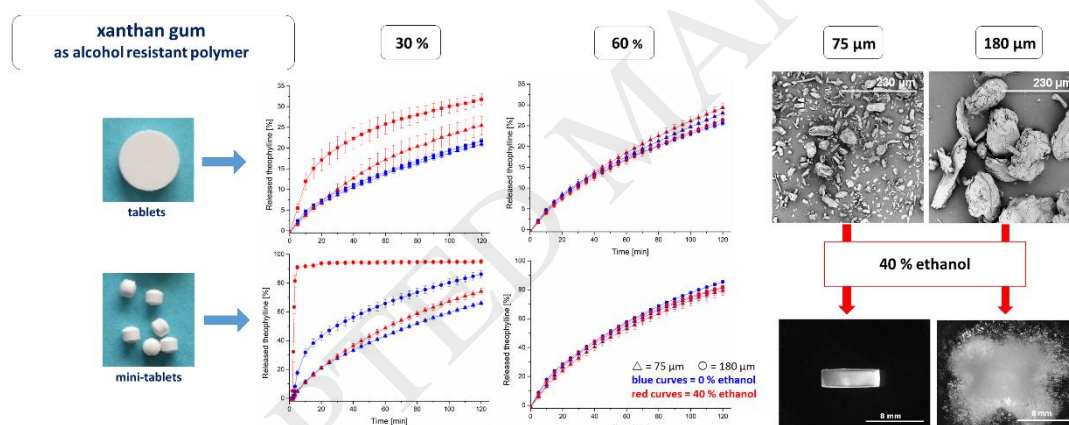
¹Institute of Pharmaceutics and Biopharmaceutics, Heinrich Heine University, Universitaetsstr. 1, 40225 Duesseldorf, Germany

*Corresponding author phone: +49 211 8114115; fax: +49 211 8114251; mail: klaus.knop@hhu.de

further email addresses:

alessia.lazzari@hhu.de, kleinebudde@uni-duesseldorf.de

Graphical Abstract



ABSTRACT

The vulnerability of controlled release formulations when co-ingested with alcohol represents a current major concern of regulatory agencies. Dose dumping might occur when drugs and/or excipients exhibit higher solubility in ethanolic solutions compared to water. In this study, xanthan gum was chosen as rate-controlling polymer for the development of alcohol resistant matrix formulations and theophylline as model drug. Two polymer particle sizes (75 and 180 μm) and concentrations (30 and 60% w/w) were used to assess their influence on the *in-vitro* drug release from directly compressed tablets and mini-tablets, in 0% and 40%

Download English Version:

<https://daneshyari.com/en/article/8520544>

Download Persian Version:

<https://daneshyari.com/article/8520544>

[Daneshyari.com](https://daneshyari.com)