



PharmTech

International Journal of PharmTech Research

CODEN (USA): IJPRIF, ISSN: 0974-4304, ISSN(Online): 2455-9563  
Vol.12, No.03, pp 91-98, 2019

## Development, Formulation and Evaluation of Eudragit RS/ RL Based Multiparticulate System

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**Abstract :** The purpose of this present work was to develop sustained release multiparticulate system as microspheres of freely water-soluble diltiazem hydrochloride by using with eudragit RS 100 or eudragit RS/RL 100 combination which are biocompatible and non-biodegradable polymer and use as encapsulating material for the sustained release of pharmaceuticals. Microspheres of diltiazem hydrochloride with various polymers drug ratios have been prepared by solvent-evaporation technique to get the optimum release of the drug for a prolonged period. The prepared microspheres were characterized by entrapment efficiency, particle size, micromeritic properties, in-vitro release behavior, scanning electron microscopy etc. Drug loaded microspheres should high entrapment efficiency (86.87%). The *in-vitro* drug release was done by using U.S.P.dissolution rate test basket type apparatus. The release of drug was prolonged upto 12 hrs. by increasing the polymer concentration.

**Key words :** multiparticulate system; eudragit RS/RL combination; solvent-evaporation technique; diltiazem hydrochloride.

Rana Mazumder *et al* /International Journal of PharmTech Research, 2019,12(3): 91-98.

DOI: <http://dx.doi.org/10.20902/IJPTR.2019.120311>

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