

# CYCLODEXTRIN-BASED NANOMATERIALS IN PHARMACEUTICAL FIELD

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## 1 INTRODUCTION

Cyclodextrins (CDs) have a wide range of application in the pharmaceutical field due to their unique structure, which allows them to include hydrophobic molecules in their apolar cavity and to mask the physicochemical properties of the included molecule. This results in the enhancement of drug bioavailability by improving aqueous solubility and the physical and chemical stability of the drug, masking undesired side effects such as irritation, taste, or odor, and overcoming compatibility problems or interactions between drugs and excipients.

Parallel to the increasing interest and successful licensing and commercialization of nanoparticulate pharmaceutical products, CDs have also been incorporated into nanoparticulate drug delivery systems for several purposes. This can be