IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.67
Volume 5, Issue 1, February 2025

A Review on Demonstration of Dissolution Apparatus Used A Tablet of Acetaminophen

Salve Bhumika Santosh
Student, Department of Quality Assurance
Samarth Institute of Pharmacy, Belhe, Maharashtra, India

Abstract: *Dissolution testing is a crucial quality control parameter in pharmaceutical formulations, ensuring consistent drug release and bioavailability. Acetaminophen, a widely used analgesic and antipyretic, requires precise dissolution evaluation to maintain therapeutic efficacy. This review focuses on the demonstration of various dissolution apparatus used for acetaminophen tablets, primarily USP Apparatus 1 (Basket Method) and USP Apparatus 2 (Paddle Method). The principles, experimental setup, dissolution conditions, and regulatory guidelines governing these methods are discussed. Factors affecting dissolution, including formulation properties, apparatus selection, and testing conditions, are also examined. The review highlights the significance of dissolution studies in pharmaceutical development, addressing challenges and advancements in dissolution testing technologies.*

Keywords: Dissolution testing, Acetaminophen tablets, USP Apparatus 1, USP Apparatus 2, Paddle method, Basket method, Drug release, Pharmaceutical quality control, Bioavailability, In-vitro dissolution

DOI: 10.48175/568