

# Solubility Enhancement of Luliconazole by Solid Dispersion

<sup>1</sup>Khokrale Tanmay, <sup>2</sup>Zanjad Vikas, <sup>3</sup>Dr. Tambe S.E

<sup>1,2</sup>Students, Samarth institute of pharmacy, Belhe

<sup>3</sup>Department of Pharmaceutical Chemistry,

<sup>1,2,3</sup> Samarth Institute of Pharmacy, Belhe, Maharashtra, India

**Abstract:** Solubility is important parameter for a drug which affects absorption of drug and bioavailability which leads to alter the therapeutic effectiveness. It plays vital role in dissolution process. Most of drugs are practically insoluble in water. Water is the choice of solvent in pharmaceutical industry. The drug should be soluble in GIT for absorption. Therefore various techniques are used to enhance the solubility of drug. In this study solubility of drug luliconazole in water enhance by using polymer PVP K-30. This technique has shown improvement in solubility of drug. The polymer PVP K-30 is used to improve the solubility of drug. The drug and polymer is used in ratio 1:2 w/w. The best release was 30% in 60 min as compared to pure drug 1% in 60 min.

**Keywords:** Luliconazole, PVP K-30, solubility, solid dispersion, UV spectroscopy, FTIR, XRD, DSCfp

