

# Effect of mixing on the dissolution kinetics of nitrofurantoin capsules

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A study was done of the effect of blending time on similar mixtures containing nitrofurantoin both in crystalline and macrocrystalline forms. The powder mixture operations were performed using a Twin-Shell Blender (V-type). Firstly, the ingredients were blended long enough to obtain an absolute homogeneity, and this point was established as zero time. Then mixing was continued, an intensifier bar was placed inside the blender, and samples were collected at different times of blending. Gelatin capsules were filled with these samples and subsequently dissolution rate tests were carried out according to Methods I and II described in U.S.P. XXI. From the results obtained through the above mentioned test, it is possible to notice a decrease in the dissolution rate values for crystalline nitrofurantoin during blending time, while these parameters do not show important differences when the assay is performed employing the macrocrystalline form of the drug. © 1988 Informa UK Ltd All rights re