



Stability Study of Paracetamol and Omeprazole Pellets Formulated through Sieving-Spheronisation

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SUMMARY. The present study describes the accelerated stability and kinetics of paracetamol and omeprazole pellets formulated by sieving-spheronisation process. Both the formulations, in amber screw-capped glass bottles, were kept for six months at three storage settings having different temperature and relative humidity. The samples were analyzed using reversed-phase high performance liquid chromatography before the start of study and thereafter 1, 2, 4, and 6 months. The data obtained were used to determine the order of degradation, activation energy, exponential factor and shelf life. Both of the formulations were found to be following the zero order degradation. At elevated temperature and humidity, decreased activation energy and increased exponential factor lowered the stability of the formulations. The predicted shelf life of paracetamol and omeprazole at 25 °C was found to be 24.42 and 21.00 months, respectively. The results of the present study indicate that the pellets of paracetamol and omeprazole prepared by sieving-spheronisation are reasonably stable.

KEY WORDS: Paracetamol, Omeprazole, Pellets, Sieving-spheronization.

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