

# Download The Impact Of Dissolution On Particle Size And

Particle size reduction (also known as comminution) is commonly used to improve material properties, including a more desirable particle size distribution and increased surface area – resulting in better particle flowability, reactivity, drying, bulk density and compactability, to name a few. Micronization, which reduces particles down to the micrometer or, in some cases, nanometer (1/1000 of a micrometer) size, can be used to improve the bioavailability of poorly soluble APIs by increasing particle surface area and accelerating dissolution rates.<sup>6</sup> Dissolution Technologies | AUGUST 2009 e-mail: yun\_mao@merck.com Biorelevant Dissolution: Methodology and Application in Drug Development Qingxi Wang<sup>1</sup>, Nikoletta Fotaki<sup>2</sup>, and Yun Mao<sup>3</sup> Analytical centrifugation (AC) is a powerful technique for the measurement of particle size distributions. This study evaluates its performance for the grouping of particulate materials according to the European Commission's recommendation on the definition of a nanomaterial, which bases on the number-weighted median diameter.