



SCHEME 8.4 Decision tree for the disposition of impurities in the drug substances. (Courtesy of Pharmquest Corporation, Mountain View, CA.)

category should be determined by the physical nature of the new drug substance and its intended use.

8.2.3.1 Particle Size

For some new drug substances intended for use in solid or suspension drug products, particle size can have a significant effect on dissolution rates, bioavailability, and/or stability. In such instances, testing for particle size distribution should be carried out using an appropriate procedure, and acceptance criteria should be provided. Scheme 8.5 is a decision tree for the disposition of particle size variations in the drug substances.

8.2.3.2 Polymorphic Forms

Some new drug substances exist in different crystalline forms that differ in their physical properties. Polymorphism may also include solvation or hydration products (also known as pseudopolymorphs) and amorphous forms. Differences in these forms could, in some cases, affect the quality or performance of the new drug products.