The Segregation of individual material fractions at the waste source and keeping the fractions separate for collection is one of the key issues in modern waste management. In most cases the waste is just kept segregated from other waste according to certain criteria that improve the possibility of optimal handling of the waste. But in a few cases, the waste must also be separated at source, for example removing the protective plastic cover from a commercial advertisement received by mail, prior to putting the advertisement into the waste collection bin for recyclable paper. These issues are often termed source separation or sorting at source. Here the word segregation has been chosen to indicate the importance of keeping the waste fractions apart by sorting waste and by separating waste into segregated materials as it is generated. The more waste that a physically defined source generates the more important it is to consider source segregation of the waste, since the amount of waste links to the possibility of obtaining manageable amounts of segregated waste with reasonable logistics as well as to the manpower that can be allocated at the source to perform source segregation of waste. Therefore, source segregation usually makes most sense in industry, where the waste often also is more well defined and cleaner, while residential waste containing relatively small amounts of each material fraction is a bigger and much more difficult challenge. This chapter describes the main issues in wastes segregation addressing: - Purpose of source segregation. - Segregation criteria and guidance. - Segregation potentials and efficiencies. - Systems for collecting segregated fraction.