

Ultimate Analysis of Solid Waste Components

The ultimate analysis of a waste component typically involves the determination of the percent C (carbon), H (hydrogen), O (oxygen), N (nitrogen), S (sulfur), and ash. Because of the concern over the emission of chlorinated compounds during combustion, the determination of halogens is often included in an ultimate analysis. The results of the ultimate analysis are used to characterize the chemical composition of the organic matter in MSW. They are also used to define the proper mix of waste materials to achieve suitable C/N ratios for biological conversion processes. Data on the ultimate analysis of individual combustible materials are presented in Table 4-3. Representative data for the typical MSW components given in Table 3-4 are presented in Table 4-4. Estimation of the average chemical composition of solid waste materials using the data given in Tables 4-1 and 4-2 is illustrated in Example 4-2.