Let $I$ denote an ideal of finite colength of the ring of convergent power series around the origin in $\mathbb{C}^n$. We show an inequality that relates the multiplicity of $I$ and the sequence of mixed Lojasiewicz exponents of $I$, that is, the sequence of Lojasiewicz exponents of generic linear sections of $I$. We characterize the corresponding equality under the hypothesis that the integral closure $\overline{I}$ is generated by monomials. As a consequence, there appears a wide class of monomial ideals that can be characterized combinatorially. Some inequalities that relate mixed multiplicities and log canonical thresholds of ideals of arbitrary codimension will also be presented. (Received January 14, 2015)