BYJU'S offers a free online chemical reaction calculator.

The rate of a chemical reaction is how quickly reactants are converted into products. It can be calculated using the formula:

$$Rateofreaction = -\frac{\delta[reactant]}{\delta time} = \frac{\delta[product]}{\delta time}$$

The rate of reaction is usually expressed in the units $molL^{-1}s^{-1}$.

The rate equation, or rate law, for a reaction is written in the form:

$$r = k[A]^x[B]^y$$

In this equation, r represents the rate, k represents the rate law constant, and x and y represent the order of reaction.

The rate constant and the exponents m, n, and p must be determined experimentally. This is done by observing how the reaction rate changes when the concentrations of the reactants are changed.