The dissolution of effervescent tablets, such as Berroca, in water is a complex process where the rate of dissolution is influenced by numerous variables such as temperature (Scientific American, 2013) and mass. Dissolution is typically characterised by the macroscopic observations of bubbles of effervescence being produced and the solution changing colour. The pale yellow Berroca tablet, added to water produces an orange solution and bubbles of a colourless gas from a colourless solution. This study aims investigates the dissolution rate of Berocca tablets, a commercially available multivitamin and mineral supplement in an aqueous solution in order to identify and highlight the key variables which affect the relationship with the rate of concentration change.

The goal of the investigation is to develop a robust understanding of solid-liquid dissolution process of Berroca. Improving the dissolution rate of drugs is an increasing demand in the pharmaceutical industry. Understanding the factors affecting dissolution rate is essential in optimising absorption rate. Studies have shown that *in vitro* dissolution rate is proportional to the *in vivo* absorption rate (Weiss, 2023), so being able to identify factors improving tablet dissolution, can aid in creating a supplement with high absorption. (Molavi, Hamed Hamishehkar, & Ali Nokhodchi, 2020)