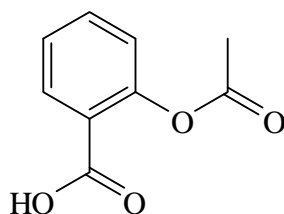


Marks
8

- The structure of common aspirin, acetylsalicylic acid, is shown below. It has a pK_a value of 3.5.



Calculate the pH of a solution in which one normal adult dose (0.65 g) is dissolved in 250 mL of water.

Answer:

If blood has a pH of 7.4, what percentage of aspirin is present in the deprotonated form in a solution consisting of one normal adult dose in 250 mL of blood?

Answer:

Solutions of aspirin are unstable due to hydrolysis. If 0.26 g of a normal adult dose remains after 4 hours, what is the half-life of aspirin?

Answer: