

Marks
8

- Solution A consists of a 0.25 M aqueous solution of hydrazoic acid, HN_3 , at 25 °C. Calculate the pH of Solution A. The $\text{p}K_a$ of HN_3 is 4.63.

Answer:

At 25 °C, 1.00 L of Solution B consists of 13.0 g of sodium azide (NaN_3) dissolved in water. Calculate the pH of Solution B.

Answer:

Solution B (1.00 L) is poured into Solution A (1.00 L) and allowed to equilibrate at 25 °C to give Solution C. Calculate the pH of Solution C.

Answer:

If you wanted to adjust the pH of Solution C to be exactly equal to 4.00, which component in the mixture would you need to increase in concentration?