Tips

Rather than attempt the conversion from 1000 ml to 150 ml in one stage, it may be simpler to take the calculation through a number of stages. In the example given above, the quantities in the master formula are first divided by 10 to give a product with a final volume of 100 ml. These quantities are then halved to give a product with a final volume of 50 ml. The quantities in the 100 ml product and 50 ml product are then added together to give the quantities of ingredients in a product with a final volume of 150 ml. By using this method, the compounder is less likely to make a calculation error.

1. Using the master formula from the British Pharmacopoeia for 1000 ml of final product, calculate the quantity of ingredients required to produce the final volume needed (150 ml).
2. Calculate the composition of a convenient quantity of Double Strength Chloroform Water BP, sufficient to satisfy the formula requirements but also enabling simple, accurate measurement of the concentrated component.

Method of compounding for Double Strength Chloroform Water BP

a. In this case, 75 ml of Double Strength Chloroform Water BP is required and so it would be sensible to prepare 100 ml. To prepare 100 ml Double Strength Chloroform Water BP, measure 5 ml of Concentrated Chloroform Water BPC 1959 accurately using a 5 ml conical measure.
b. Add approximately 90 ml of potable water to a 100 ml conical measure (i.e. sufficient water to enable dissolution of the concentrated chloroform component without reaching the final volume of the product).
c. Add the measured Concentrated Chloroform Water BPC 1959 to the water in the conical measure.
d. Stir gently and then accurately make up to volume with potable water.
e. Visually check that no undissolved chloroform remains at the bottom of the measure.

Noting that Sodium Bicarbonate BP is soluble 1 in 11 with water, a minimum of 11 ml of water would be required to dissolve 1 g of Sodium Bicarbonate BP.

The final volume of Magnesium Trisilicate Mixture BP required (150 ml) will contain 7.5 g of Sodium Bicarbonate BP. As 1 g of sodium bicarbonate is soluble in 11 ml, 7.5 g is soluble in 82.5 ml ($7.5 \times 11 = 82.5$ ml).

Therefore a minimum of 82.5 ml of vehicle would be required to dissolve the 7.5 g of sodium bicarbonate in this example. For ease of compounding, choose a convenient volume of vehicle, say 90 ml, in which to dissolve the solute initially. When choosing the amount of vehicle to use for dissolution, it is important to consider the total amount of each liquid ingredient in the preparation to