

Example 2.2

The preparation of Ammonium Chloride Mixture BP

You receive a prescription in your pharmacy with the following details:

Patient:	Mr James Watson, 4 Arrow Ave, Astonbury
Age:	42
Prescription:	Ammonium Chloride Mixture BP
Directions:	10 ml tds prn
Mitte:	50 ml

1. Use of the product

Used as an expectorant to treat chesty coughs (*Martindale* 33rd edn, p 1085).

2. Is it safe and suitable for the intended purpose?

This is an official preparation, therefore the formula is safe and suitable for purpose. The dose of 10 ml three times a day when required is consistent with the adult standard dosage for official oral liquids (of 10 ml) three to four times a day by convention.

3. Calculation of formula for preparation

Prepare 50 ml of Ammonium Chloride Mixture BP.

Product formula

(from the *British Pharmacopoeia* 2004, p 2181)

	Master	500 ml	50 ml
Ammonium Chloride BP	100 g	50 g	5 g
Aromatic Ammonia Solution BP	50 ml	25 ml	2.5 ml
Liquorice Liquid Extract BP	100 ml	50 ml	5 ml
Potable water	to 1000 ml	to 500 ml	to 50 ml

4. Method of preparation

a. Solubility where applicable

Ammonium Chloride BP is soluble 1 in 2.7 in water (*British Pharmacopoeia* 1988, p 36). Therefore to dissolve 5 g of ammonium chloride a minimum of $5 \times 2.7 = 13.5$ ml of water would be required.

b. Vehicle/diluent

Potable water would be used as the vehicle as per the product formula.

c. Preservative

No additional preservative is required as per the product formula.