

Worked examples

Example 5.1

The preparation of Cetrimide Cream BP

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

Patient:	Mrs Samantha Fuller, 4 Park Street, Astonbury
Age:	42
Prescription:	Cetrimide Cream BP
Directions:	Apply to the abrasion tds
Mitte:	20 g

1. Use of the product

Aqueous solutions and creams containing 0.1–1% cetrimide are used for the treatment of wounds and burns, for preoperative cleansing of the skin and for the removal of scabs and crusts in skin disease (*British Pharmaceutical Codex* 1973, p 88).

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

This is an official preparation, therefore the formula is safe and suitable for purpose.

3. Calculation of formula for preparation

Prepare 20 g Cetrimide Cream BP.

Product formula

(from the *British Pharmacopoeia* 2004, p 2261)

	Master	100 g	10 g	30 g
Cetrimide BP	5 g	500 mg	50 mg	150 mg
Cetostearyl Alcohol BP	50 g	5 g	500 mg	1.5 g
Liquid Paraffin BP	500 g	50 g	5 g	15 g
Freshly boiled and cooled purified water	445 g	44.5 g	4.45 g	13.35 g

4. Method of preparation

a. Solubility where applicable

Cetostearyl Alcohol BP is practically insoluble in water and, when melted, miscible with liquid paraffin (*Martindale* 33rd edn, p 1408). Cetrimide BP is soluble in 2 parts water (*British Pharmacopoeia* 1988, p 111) and Liquid Paraffin BP is practically insoluble in water, sparingly soluble in ethanol and soluble with hydrocarbons (*British Pharmacopoeia* 1988, p 415).

Tips

The exact quantity cannot be prepared for a cream as losses will be encountered on transfer. Therefore, a suitable overage must be produced in order to dispense the required final amount. Note that all liquid ingredients (including the Liquid Paraffin BP) must be weighed.