

Example 4.2

The preparation of a magistral formulation from a doctor's prescription

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

| | |
|----------------------|--|
| Patient: | Mr James Taylor, 123 Station Road, Astonbury |
| Age: | 23 |
| Prescription: | Arachis Oil BP 40% emulsion with peppermint flavouring |
| Directions: | 15 ml bd |
| Mitte: | 150 ml |

1. Use of the product

Arachis Oil BP is nutritious, demulcent and mildly laxative (*British Pharmaceutical Codex* 1973, p 31).

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

Calogen is an emulsion for disease-related malnutrition and malabsorption states and contains arachis oil at a concentration of 50% (*British National Formulary* 51st edn, p 801). Therefore this formula is safe and suitable for use.

3. Calculation of formula for preparation

Prepare 150 ml of Arachis Oil BP 40% emulsion with a peppermint flavouring.

Before deciding the formula for the emulsion, the type and quantity of flavouring must be decided upon. Concentrated Peppermint Emulsion BP is a suitable flavouring and the dose is 0.25–1 ml. The dose of the emulsion is 15 ml bd which means each individual dose is 15 ml, therefore in 150 ml there would be 10 doses. The amount of Concentrated Peppermint Emulsion BP that would be suitable to use would be $10 \times 0.25 = 2.5$ ml.

Product formula

| | Master | 50 ml | 150 ml |
|--|-----------|----------|-----------|
| Arachis Oil BP | 40 ml | 20 ml | 60 ml |
| Acacia BP | qs | qs | qs |
| Concentrated Peppermint Emulsion BP | qs | qs | 2.5 ml |
| Double Strength Chloroform Water BP | 50 ml | 25 ml | 75 ml |
| Freshly boiled and cooled purified water | to 100 ml | to 50 ml | to 150 ml |

The quantity of emulsifying agent (Acacia BP) required to produce 150 ml of the emulsion must be calculated.

Formula for primary emulsion

Arachis oil is a fixed oil. Therefore the primary emulsion ratio is: