of constituents within the primary emulsion (for example, fixed-oil emulsions made by the continental method would use a ratio of 4:3:2 rather than 4:2:1 with the dry gum method).

Internal emulsions prepared by the dry gum method should contain, in addition to the oil to be emulsified:

- a vehicle
  Freshly boiled and cooled purified water is normally used because of the increased risk from microbial contamination.
- a preservative
  This is usually added to the product as Double Strength Chloroform Water BP at 50% of the volume of the vehicle. If freshly boiled and cooled purified water is used as the vehicle, it would be appropriate to manufacture the Double Strength Chloroform Water BP using freshly boiled and cooled purified water rather than potable water.
- an emulsifying agent (or emulgent)
  The quantity of emulsifying agent added is determined by the type of oil to be emulsified and the quantity of emulsion to be prepared
- additional flavouring if required
- additional colouring if required

Calculation of the amount of emulsifying agent to be used in the preparation of an emulsion

The amount of emulsifying agent used is dependent on the amount and type of oil to be emulsified. Oils can be divided into three categories: fixed oils, mineral oils and volatile oils.

Fixed oils

- Oil: 4 parts by volume
- Aqueous phase: 2 parts by volume
- Gum: 1 part by weight

Mineral oils

- Oil: 3 parts by volume
- Aqueous phase: 2 parts by volume
- Gum: 1 part by weight

Volatile (aromatic) oils

- Oil: 2 parts by volume
- Aqueous phase: 2 parts by volume
- Gum: 1 part by weight

These proportions are important when making the primary emulsion, to prevent the emulsion breaking down on dilution or storage.