

GENERAL PHARMACY

UNIT 4

General Pharmacy

Monophasic and Biphasic Liquids



MONOPHASIC LIQUIDS: OVERVIEW

A monophasic liquid dosage form is a homogeneous, single-phase system in which the active pharmaceutical ingredient (API) and soluble excipients are molecularly dispersed in a suitable vehicle.

FORMULATION

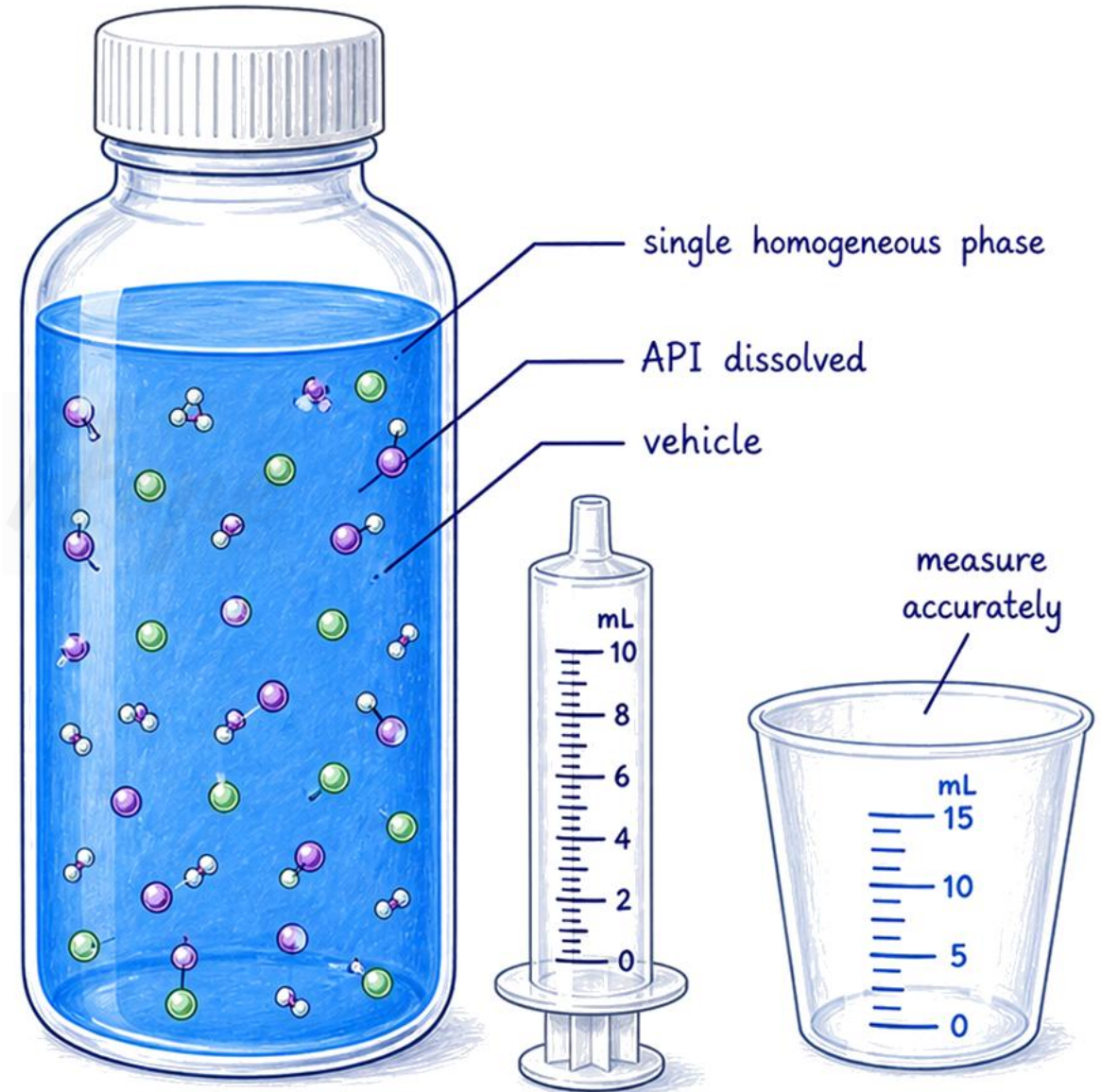
- ▶ Vehicle or solvent
- ▶ API
- ▶ Compatible excipients
- ▶ Suitable container, label, storage, and calibrated dose device

POTENTIAL BENEFITS

- Easier swallowing for some patients
- Dose volume may be adjusted when prescribed
- Taste can sometimes be masked
- A dissolved API may become available for absorption sooner than a solid form

IMPORTANT LIMITS

- Chemical and microbial stability may be challenging.
- Liquids are bulky and may leak or break.
- Measuring errors or incomplete administration can reduce dose accuracy.
- Faster onset, absorption, or bioavailability is not guaranteed.

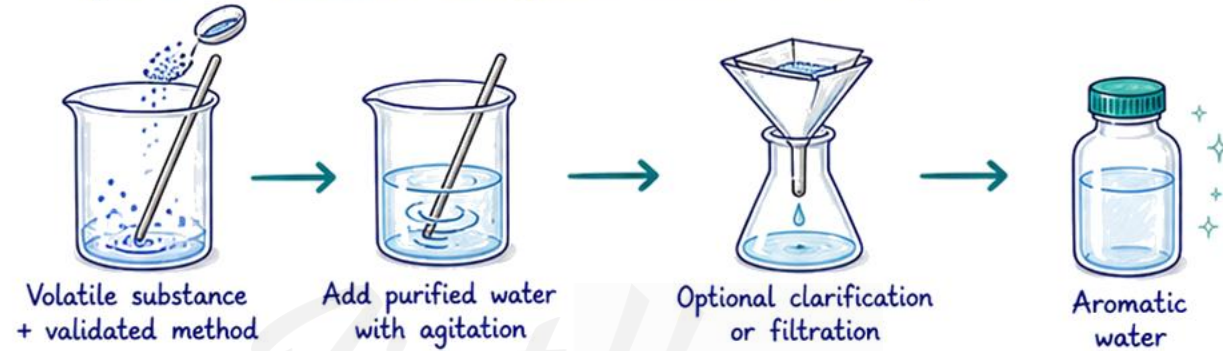


AROMATIC WATERS

Aromatic waters are clear aqueous preparations containing volatile aromatic substances, often near their aqueous solubility limit. They are commonly used as flavoured or perfumed vehicles; therapeutic action is not implied.

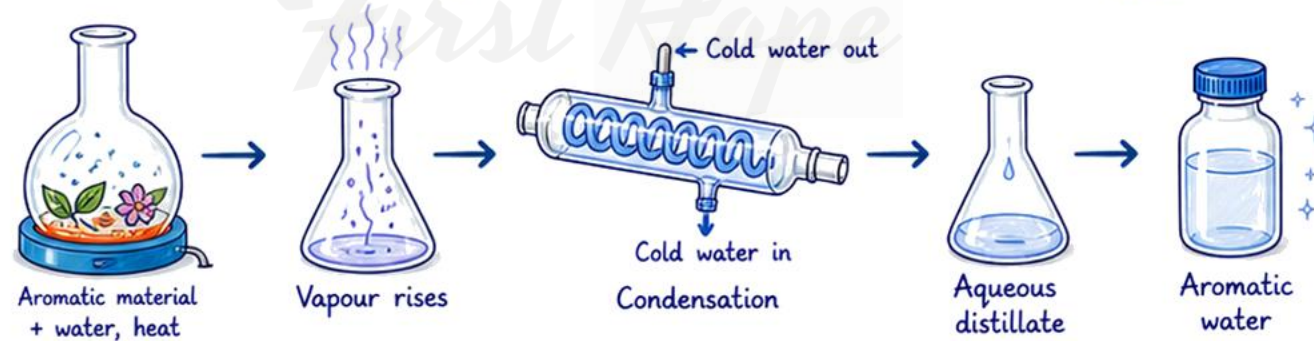
SOLUTION METHOD

- Dissolve or disperse the volatile substance by a validated method.
- Add purified water gradually with agitation.
- Clarify or filter as appropriate.



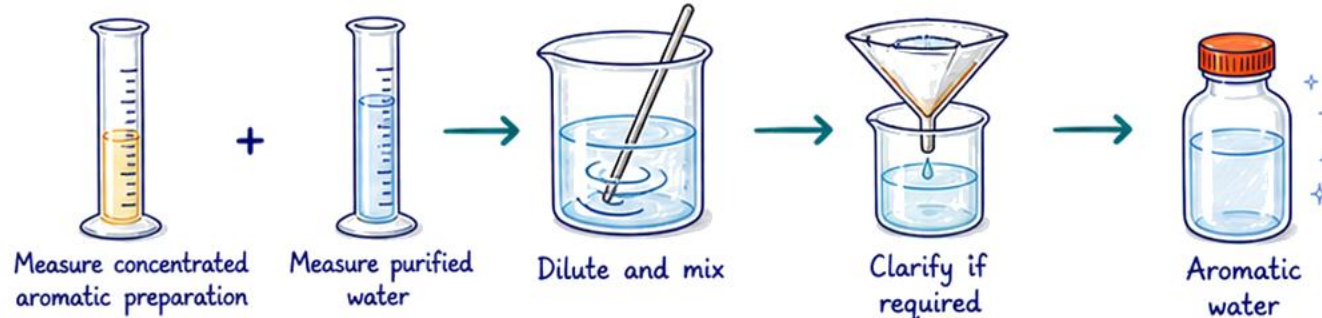
DISTILLATION METHOD

- Combine aromatic material with water and heat.
- Vapour rises, condenses, and is collected as the aqueous distillate.



DILUTION METHOD

- Measure a suitable concentrated aromatic preparation.
- Dilute accurately with purified water and mix.
- Clarify if required.



FINISH

- Control clarity and microbial quality.
- Package in a well-filled, tightly closed container that limits volatile loss; protect from light when required.

The three methods are alternatives, not consecutive stages.



Do not store with cap loose or open.



Avoid excessive heat.

SYRUPS

Syrups are concentrated, viscous aqueous oral preparations containing sugar or sugar substitutes, with or without an API.

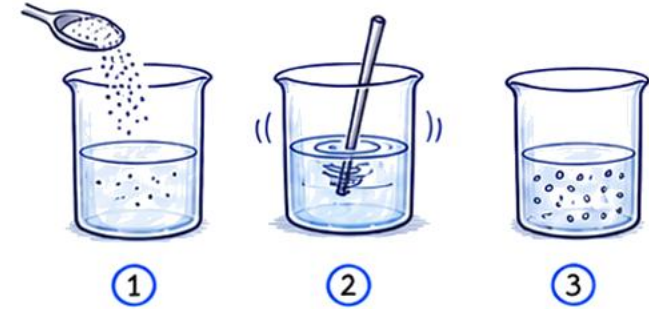
WITH HEAT

Gently dissolve sugar in water, cool, then add heat-sensitive ingredients and adjust volume.



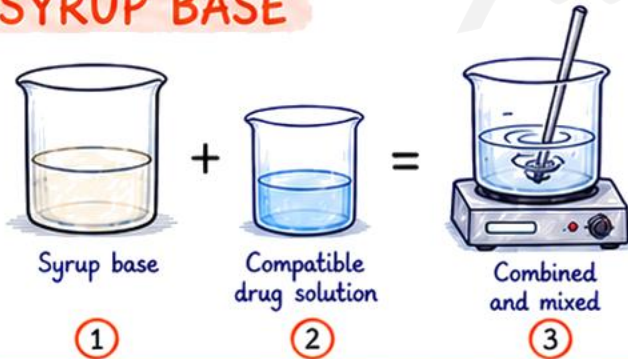
WITHOUT HEAT

Dissolve by agitation at room temperature; add medicinal ingredients and mix uniformly.



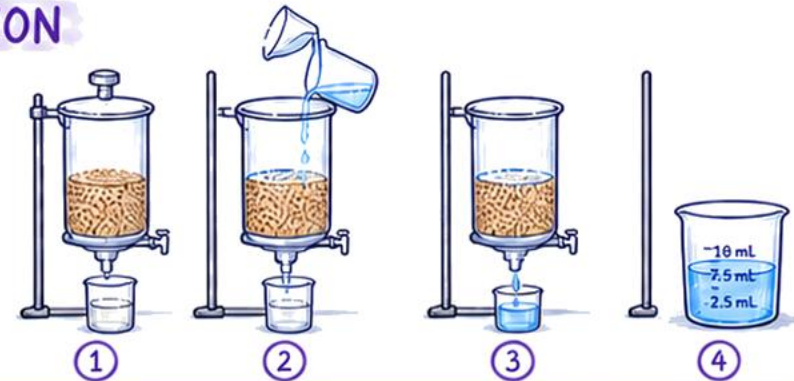
ADDITION TO SYRUP BASE

Prepare the base, dissolve the medicament in a compatible vehicle, then incorporate it with mixing.



PERCOLATION

Pass purified water or vehicle slowly through suitable sugar-containing or medicinal material; collect and adjust volume.



HEAT CAUTION

- Use gentle heating. Excessive heat may promote sucrose inversion, caramelisation, volatile loss, or drug degradation.
- Concentrated sucrose may lower water activity, but diluted or sugar-free syrups may require a compatible preservative proven effective.
- Package tightly with a calibrated dose device.

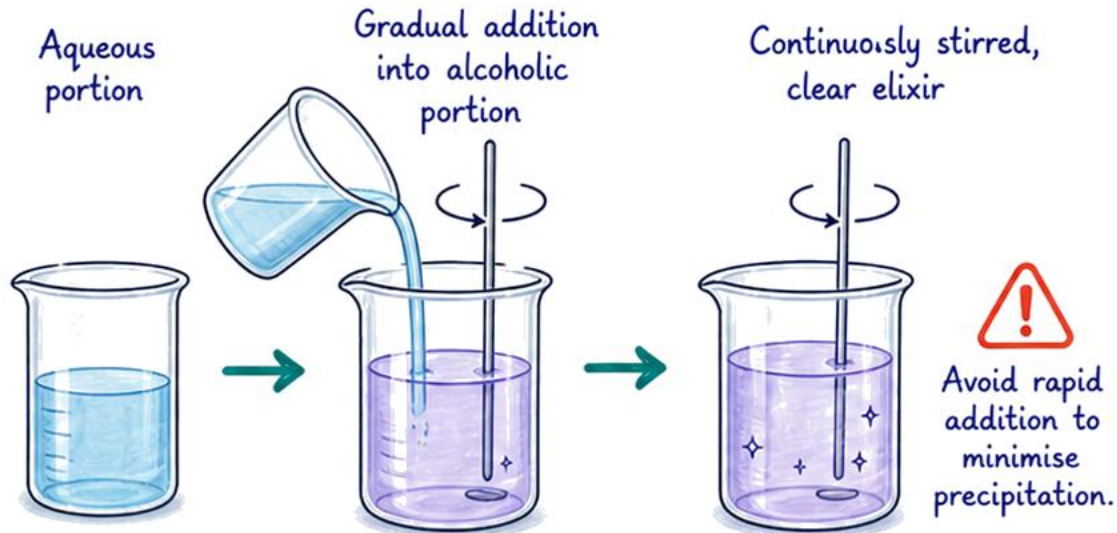


ELIXIRS & LINCTUSES

ELIXIR

- Clear, sweetened hydroalcoholic oral liquid.
- Prepare aqueous and alcoholic portions separately.
- Add the aqueous portion gradually to the alcoholic portion with continuous stirring to minimise precipitation.
- Add compatible sweetener, flavour, and colour; clarify if required and adjust volume.
- Alcohol content and dose suitability are product-specific.

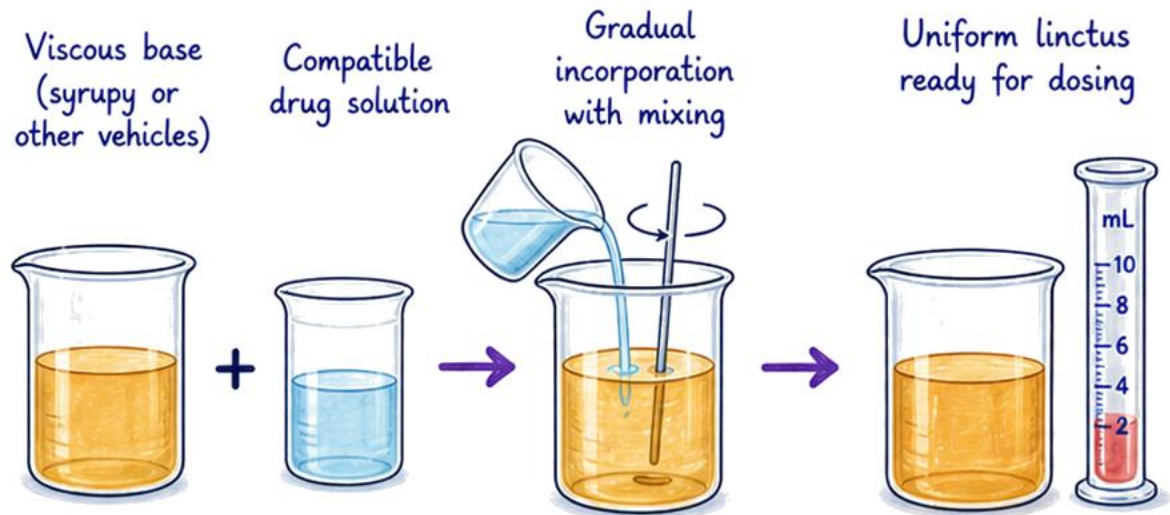
PREPARATION LANE



LINCTUS

- Viscous, sweet oral liquid used mainly for cough or throat symptoms.
- Prepare a syrupy or viscous base and a compatible drug solution.
- Incorporate the drug solution gradually, mix uniformly, add flavour if required, and adjust volume.
- The viscous vehicle prolongs contact in the mouth and throat.
- Take slowly, usually undiluted, exactly as labelled, using a calibrated dose device. A linctus is swallowed, not gargled or painted.

PREPARATION LANE



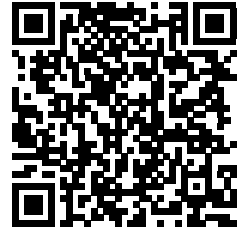


FREE PREVIEW

[Click here to visit our website](#)

PHARMACY PREMIUM NOTES

Complete subject
and semesters are
available on
FirstHope app only.



[Scan or click here](#)

Click here to get the app



Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram



[Scan or click here](#)

@FirstHopeNotes

Instagram

@firsthope.official

[Click here to follow >](#)

YouTube channel

FirstHope-Pharmacy / Live streams

[Click here to watch >](#)

WhatsApp channel

Follow FirstHope on WhatsApp

[Click here to join >](#)

FirstHope website

firsthopenotes.com

[Click here to visit >](#)

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Preview notes. Complete subjects and semesters in the FirstHope app.