GENERAL PHARMACY

UNIT 3

General Pharmacy

Solid Dosage Forms



Powders: definition & fundamentals

Definition — dry, finely divided drugs or chemicals prepared for a stated use.

Preparation — crystallisation, precipitation, drying, milling, sieving and blending may be used.

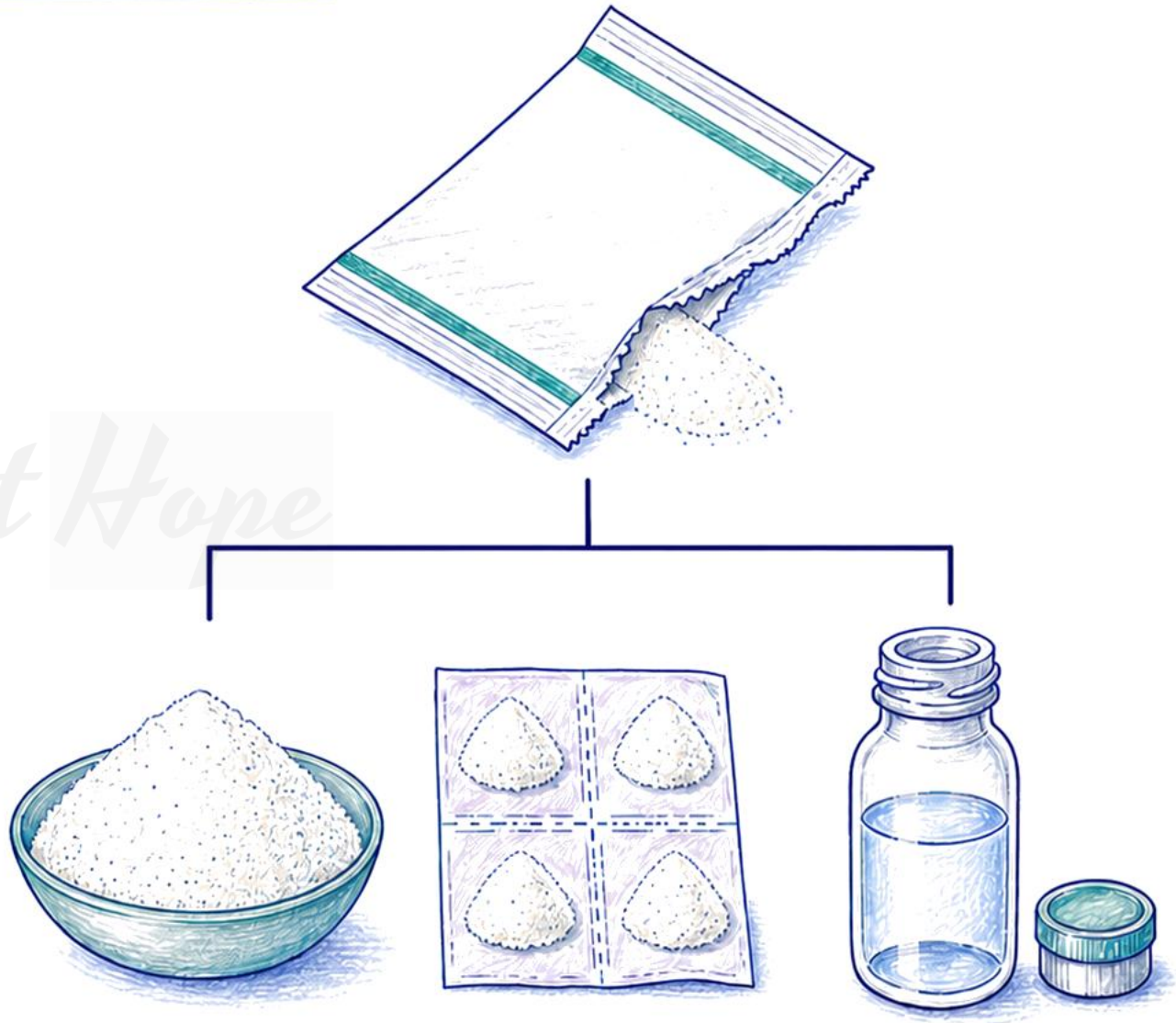
Presentation — products may be bulk, divided-dose or unit-dose preparations.

Routes — oral, topical, inhaled and reconstituted products need different controls.

Particle size influences flow, mixing, dissolution, feel and physical stability.

Quality requires identity, purity, uniformity, moisture and microbial control.

Always measure, prepare and use a powder exactly as its label directs.



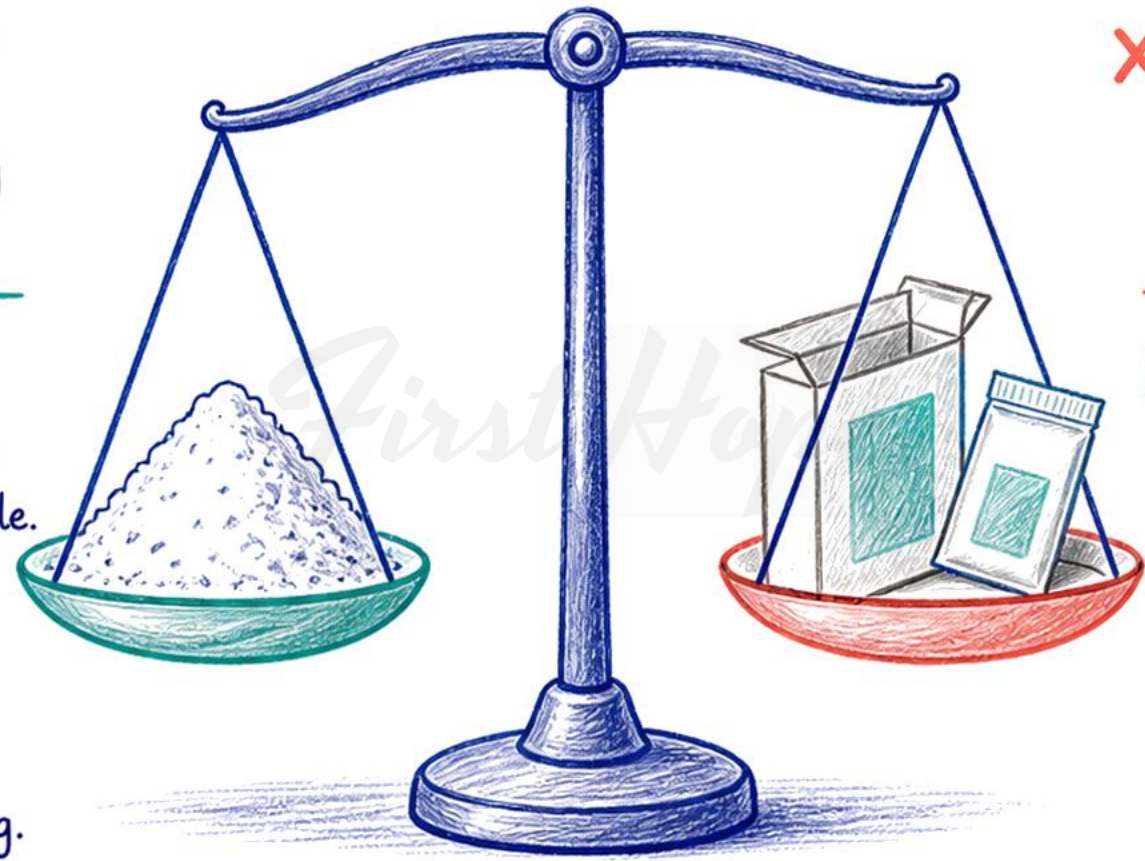
First Hope

Powders: advantages & limitations

✓ Flexible presentation can support dose adjustment when a suitable measuring method exists.

✓ Rapid dispersion may aid dissolution when particles wet readily and remain stable.

✓ Simple processing can suit ingredients that tolerate milling, mixing and packaging.



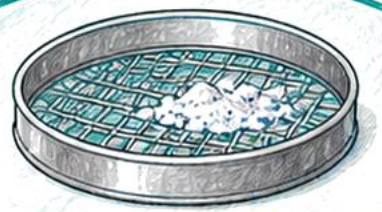
✗ But bulk powders can give inaccurate doses when measuring technique varies.

✗ Taste, odour, dust formation and swallowing difficulty may reduce patient adherence.

✗ Humidity, oxygen, light, heat and ingredient interactions can damage dry products.

✱ Smaller particles do not guarantee faster absorption, faster onset or better bioavailability.

Powder classification: three separate lenses

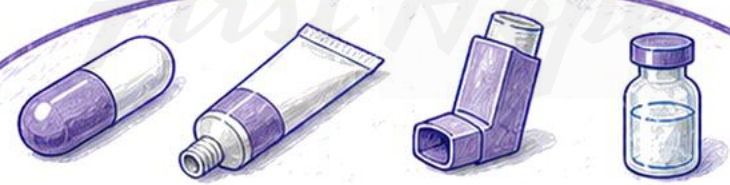


Fineness describes the measured particle-size distribution, not the product route.





Presentation distinguishes bulk powders from divided or unit-dose preparations.



Intended use separates oral, topical, inhalation and reconstitution applications.

- Together they answer three questions: how fine, how presented and how used.
- A single product can occupy one category under each independent lens.
- Do not connect these peer categories with arrows suggesting manufacture or progression.
- Classification helps choose testing, packaging, measuring and safe-use instructions.

Powder fineness: current Indian Pharmacopoeia

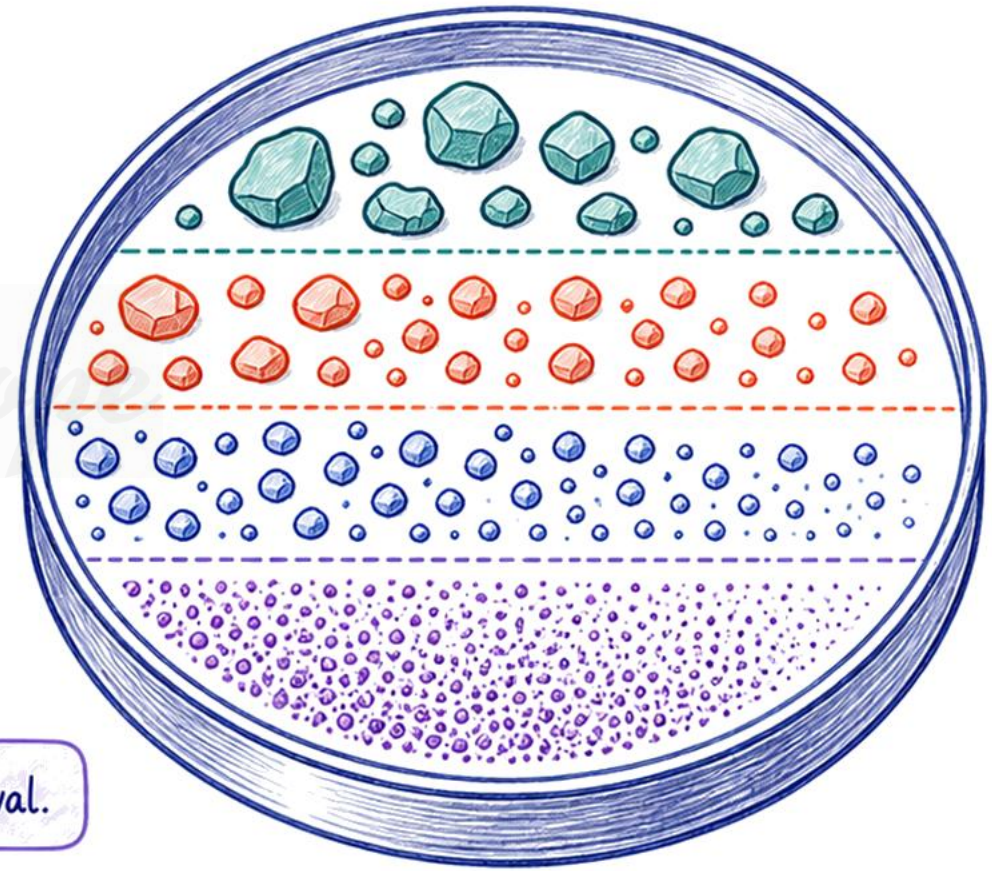
IP 2.4.49 classifies fineness using median particle size x50 and volume distribution Q_3.

Coarse — x50 above 355 micrometres.

Moderately fine — x50 above 180 and at or below 355 micrometres.

Fine — x50 above 125 and at or below 180 micrometres.

Very fine — x50 at or below 125 micrometres.



x50 is the median; it does not mean every particle fits that interval.

Measure the distribution by a suitable validated method, such as sieving or diffraction.

First Hope

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

firsthope.co.in

Click here to visit >

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

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