

Preparation of Paracetamol Tablets

Experiment 20 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To prepare, evaluate, package and label a tablet-formulation training batch.

Principle

Granulation and compression convert a blend into a solid unit. Binder, disintegrant and lubricant influence strength and release behaviour.

Working Formula

Use the assigned current monograph for ingredient grades, amounts and specifications. Enter the working quantities before starting.

Ingredient	Purpose	Working quantity
Paracetamol / designated dummy material	Assigned drug	_____
Diluent	Bulk	_____
Binder	Granule strength	_____
Disintegrant	Break-up	_____
Lubricant	Compression and ejection	_____

Scaling factor = required batch size / master batch size. Working ingredient amount = master amount × scaling factor.

Requirements

- Assigned master formula and ingredients
- Balance, measuring glassware and suitable mixing equipment
- Appropriate clean container and label

Procedure

1. Weigh and mix

Scale the master formula and blend the assigned powders.

2. Granulate

Add binder as directed to form a suitable wet mass and screen it.

3. Dry and size

Dry using the validated teaching conditions and size the granules.

4. Final blend

Add disintegrant and lubricant in the specified sequence.

5. Compress

Observe the supervised press settings and collect tablets.

Pharmaceutics

6. Evaluate

Record appearance, mass, hardness and assigned disintegration or dissolution tests.

Evaluation and Label

- Assess mass variation, friability, disintegration and the specified analytical tests; hardness is not a substitute for dissolution.
- Label the name, strength where relevant, route, batch/date, storage and institution-assigned use period. Mark laboratory preparations as training material.

Observations and Record

Check	Observation
Appearance / consistency	_____
Final mass or volume	_____
pH or other assigned test	_____
Packaging / label check	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Example only: 10 tablets with 500 mg labelled paracetamol each require 5 g active drug; total tablet mass also includes excipients.

Result

The training preparation was obtained as _____. Final yield: _____. Assigned quality checks: _____. It was packaged and labelled for the intended route.

Precautions

- Use the tablet press only under trained supervision.
- Avoid over-lubrication.
- Document the training batch and losses.

Viva Questions and Answers**1. Why scale every ingredient?**

The proportions must remain constant when batch size changes.

2. Why record the method?

Mixing order, temperature and technique affect the product.

3. Which quality checks are needed?

Assess mass variation, friability, disintegration and the specified analytical tests; hardness is not a substitute for dissolution.

4. Why is a label required?

It identifies the product, route, directions, storage and the training batch.

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