

Suppositories

Experiment 9 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To prepare, compare and label the formulations listed in this practical using the assigned formula.

Principle

Suppositories contain an ingredient in a moulded base. Base behaviour, mould calibration and displacement by the medicament affect the final mass.

Requirements

- Assigned master formulas and ingredients for the formulations listed below.
- Balance, beakers, measuring cylinders, stirring equipment and compatible containers.

Procedure

1. Calibrate the mould

Prepare blank base units as specified and obtain the mean base-only mass per cavity.

2. Calculate

Record the number of units, medicament per unit and the defined displacement factor for the chosen base.

3. Prepare the mass

Melt or soften the base as specified, incorporate the ingredient uniformly and maintain controlled mixing.

4. Fill and cool

Fill the mould in the assigned manner, allow it to set, trim and remove without damaging the units.

5. Evaluate

Check appearance, individual mass, uniform distribution and any assigned softening/disintegration test before labelling.

Preparations in This Practical

Preparation	Formulation role / method distinction
Boric Acid Suppositories	Disperse the assigned boric acid in the prescribed base and use mould calibration and the defined displacement calculation.
Chloral Suppositories	Follow the authorised teaching formula and compatibility assessment; control base temperature and discuss the ingredient-specific precautions with the instructor.

Pharmaceutics

Evaluation and Label

- Confirm which displacement-factor definition the formula uses.
- Avoid overheating the base and settling of dispersed material.

Observations and Record

Preparation	Batch size / yield	Appearance and checks
Boric Acid Suppositories	_____	_____
Chloral Suppositories	_____	_____

Worked Example

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

- Scale factor = required final quantity / quantity in the master formula.
- Illustration: a 100 mL formula scaled to 30 mL has factor 0.30; 5 g of an ingredient becomes 1.5 g.
- Percentage w/v means grams in 100 mL of final preparation; percentage w/w means grams in 100 g of final preparation.

Displacement example only: if one gram of medicament displaces 0.5 g of base, 2 g of medicament displaces 1 g. Subtract that base displacement from the base-only mould requirement, then apply the stated process allowance.

Result

Record each preparation, formula version, actual yield, evaluation, container and complete label.

Precautions

- Record which official or college formula and strength were used. The historic IP, BP, BPC and NF titles in the syllabus do not establish a current market specification.
- Avoid confusing the amount of vehicle added with the final volume or mass.
- Use an appropriate route label; a teaching batch is not supplied to a patient.
- Confirm which displacement-factor definition the formula uses.
- Avoid overheating the base and settling of dispersed material.

Viva Questions and Answers

1. Why calibrate a mould?

Cavity volume is fixed, but the mass held depends on the density of the selected base.

2. How does medicament displacement affect base quantity?

The medicament occupies volume and reduces the base needed for a calibrated cavity.

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