Preparation of Calamine Lotion

Experiment 7 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To prepare, evaluate, package and label a calamine suspension lotion.

Principle

Insoluble solid particles are dispersed in a liquid vehicle. Wetting and controlled particle size support easy redistribution after settling.

Working Formula

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

Ingredient	Purpose	Working quantity
Calamine	Dispersed solid	_____
Zinc oxide if specified	Protective solid	_____
Glycerol	Wetting agent	_____
Assigned suspending medium	Vehicle	_____

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. Calculate and inspect

Record the assigned formula and inspect powders for lumps.

2. Levigation

Triturate powders with the wetting liquid to make a smooth paste.

3. Dispersion

Add the suspending vehicle gradually with mixing.

4. Complete

Transfer quantitatively and bring to final volume.

5. Evaluate and label

Observe sedimentation and redispersion; label Shake well and For external use.

Evaluation and Label

- Inspect grit, uniformity, sedimentation and the number of gentle inversions needed for redispersion.
- 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.

- For a 25-unit batch from a 100-unit master formula, multiply every ingredient quantity by 0.25.
- Enter the actual final yield and compare it with the target batch size.

Result

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

Precautions

- Do not label the lotion for oral use.
- Avoid inhaling fine powders.
- A hard sediment that cannot be redispersed is undesirable.

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?

Inspect grit, uniformity, sedimentation and the number of gentle inversions needed for redispersion.

4. Why is a label required?

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

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