Preparation of Magnesium Hydroxide Mixture

Experiment 8 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To prepare, evaluate, package and label a magnesium hydroxide suspension.

Principle

Magnesium hydroxide is poorly soluble; the preparation is a dispersed solid mixture whose dose uniformity depends on redispersion.

Working Formula

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

Ingredient	Purpose	Working quantity
Magnesium hydroxide	Active dispersed solid	_____
Assigned stabiliser	Suspension stability	_____
Purified water	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

Check whether the assigned formula uses the solid or prepares it by precipitation.

2. Disperse

Wet and disperse the assigned solid with gradual addition of vehicle.

3. Mix

Obtain a smooth, uniform dispersion using the approved method.

4. Complete

Bring to volume and package.

5. Evaluate

Record settling, redispersion and assigned pH or assay checks.

Evaluation and Label

- Check the appearance, ease of redistribution, final volume and assigned monograph tests.
- 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

- Use only the designated grade of ingredients.
- Do not infer antacid strength from appearance.
- Include Shake well when required.

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?

Check the appearance, ease of redistribution, final volume and assigned monograph tests.

4. Why is a label required?

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

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