Emulsions

Experiment 7 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

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

Principle

An emulsion disperses one immiscible liquid within another using an emulsifying system. Primary emulsion formation and subsequent dilution affect stability.

Requirements

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

Procedure

1. Calculate phases

Identify dispersed phase, continuous phase and emulsifier in the selected formula.

2. Form the primary emulsion

Apply the assigned wet-gum, dry-gum or other method in the prescribed sequence.

3. Dilute gradually

Add the remaining aqueous vehicle in portions after a uniform primary emulsion forms.

4. Evaluate

Record type, uniformity, creaming, separation and redispersion using the assigned checks.

5. Package and label

Use a compatible container and the appropriate route and shake instructions.

Preparations in This Practical

Preparation	Formulation role / method distinction
Cod Liver Oil Emulsion	Use the assigned oil-emulsifier-water proportions and method; form the primary emulsion before adding the remaining vehicle.
Liquid Paraffin Emulsion	Use the formula-specific emulsifier ratio and primary emulsion method; do not automatically reuse the fixed-oil ratio.

Evaluation and Label

- Distinguish reversible creaming from cracking that does not redisperse.

- Use the formula-specific primary-emulsion proportions.

Observations and Record

Preparation	Batch size / yield	Appearance and checks
Cod Liver Oil Emulsion	_____	_____
Liquid Paraffin Emulsion	_____	_____

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.

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.
- Distinguish reversible creaming from cracking that does not redisperse.
- Use the formula-specific primary-emulsion proportions.

Viva Questions and Answers

1. What is creaming?

Movement of droplets into a concentrated layer without necessarily breaking the interfacial film.

2. Why form a primary emulsion first?

It establishes the droplet dispersion and emulsifier film before further dilution.

First Hope

COMPLETE NOTES

Click here to visit our website

PHARMACY PRACTICAL 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

Complete subjects and semesters are available in the FirstHope app.