


Label:

<p><u>Composition:</u> 50 ml contains: Cod liver oil : Gum Acacia : Distilled water :</p> <p><u>Uses:</u> It is used as a source of vitamin A & vitamin D and to treat high cholesterol and high triglyceride levels.</p> <p><u>Precaution:</u></p> <p>Manufactured By:</p>		<p>Storage:</p>
	<p>COD LIVER OIL EMULSION</p> <p>50 ML</p>	<p>Mfg. lic. No.:</p> <p>Batch No. :</p> <p>Mfg. date :</p> <p>Exp. Date :</p> <p>MRP Rs : (Inclusive of all taxes)</p> <p>Marketed By:</p>

Calculation:

$$\text{Factor} = \frac{\text{Required quantity}}{\text{Quantity given}} = \dots\dots\dots$$

Practical - 5

Date: .../.../.....

Aim: To prepare and submit 50 ml of Cod liver oil emulsion.

Reference:.....
.....

Requirements:

Apparatus/Equipment required:.....

Chemical required:.....
.....

Theory:

Cod liver oil is fixed oil obtained from the fresh liver of the cod fish. Cod liver oil contains vitamin A & D, vital nutrients for immune system function, cellular growth, reproduction etc. Cod liver oil emulsion is given in case of the deficiency of vitamin A and D as an anti-rachitic. The emulsion is prepared by the dry gum method. Acacia is the emulsifying agent and tragacanth is emulsion stabilizer. Saccharin sodium is used as the sweetening agent. Benzaldehyde spirit is used as the flavouring agent and chloroform is used as the preservative.

Cod liver oil emulsion Formulation Table:

S. No.	Chemical Name	Quantity Given (1000ml)	Quantity Taken (Factor x Quantity given)	Uses of Ingredients
1.	Cod liver oil	500 ml		Anti-rachitic agent
2.	Gum Acacia	125 gm		Emulsifying agent
3.	Tragacanth (Powder form)	7.5 gm		Stabilizing agent
4.	Benzaldehyde spirit	2.5 ml		Flavouring agent
5.	Saccharin Sodium	1 gm		Sweetening agent
6.	Chloroform	2.5 ml		Preservative
7.	Purified Water/ Distilled water	q.s. 1000 ml		Vehicle

Procedure:

- Accurately weigh all the ingredients.
- Take the cod liver oil in dry mortar, then add gum acacia and tragacanth powder in it.
- Add the required volume of water to produce the primary emulsion.
- Triturate the above mixture in one direction only until a primary emulsion is formed.
- Then dilute with a small portion of water and add the saccharin sodium solution, benzaldehyde spirit and chloroform with constant stirring.

- Finally, make up the volume with purified water.
- Transfer the preparation to a suitable container and label.

Storage: Store in a well-closed container in a cool place. Protected from light to prevent the degradation of vitamin A.

Signa:

- 1) Shake well before use.
- 2) One tablespoonful to be taken twice a day after meals.

Uses: Source of vitamin A and D (Anti-rachitic)

Observation and Evaluation:

Name of the Preparation	Test	Specification	Observation
Cod liver oil emulsion	Description		
	Colour		
	Odour		
	Volume		

Result: I have prepared and submit the _____ in a neat and cleaned glass bottle and labelled it properly.

Questions Bank

1. What is **Anti-rachitic** agent?
2. What is source of cod liver oil?
3. What is the chemical name of Vitamin A?
4. What is the use of Vitamin A in human body?
5. What is the chemical name of Vitamin D?
6. What is the use of Vitamin D in human body?
7. What is the Benzaldehyde spirit?
8. What is the chemical formula of chloroform?
9. What are the Stabilizing agents?
10. What is vehicle?