Label:

<u>Composition:</u> 50 gm contains: Magnesium Sulphate : Sodium Hydroxide : Light Magnesium oxide : Chloroform : Peppermint Oil : Purified water freshly boiled and cooled : **<u>Uses:</u>** **<u>Precaution:</u>** **Manufactured By:**	 **Magnesium Hydroxide Mixture (50ml)**	**Storage:** **Mfg. lic. No.:** **Batch No. :** **Mfg. date :** **Exp. Date :** **MRP Rs :** **(Inclusive of all taxes)** **Marketed By:**

Calculation:

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

Practical - 11

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

Aim: To prepare and submit 50 ml of Magnesium hydroxide mixture.

Reference:……

……

Requirements:

Apparatus/Equipment required:…….....

Chemical required:…….....

……

Theory:

Magnesium hydroxide mixture is also known as Milk of magnesia or magnesium (2+) hydroxide. Magnesium Hydroxide Mixture is an aqueous suspension of hydrated magnesium oxide. It may be prepared from a suitable grade of Light Magnesium Oxide. Content of hydrated magnesium oxide, calculated as $Mg(OH)_2$ 7.45 to 8.35% w/w.

Magnesium hydroxide mixture Formulation Table:

S. No.	Chemical Name	Quantity Given (1000ml)	Quantity Taken (Factor x Quantity given)	Uses of Ingredients
1.	Magnesium Sulphate	47.5 gm		Reaction agent
2.	Sodium Hydroxide	15 gm		Reaction agent
3.	Light Magnesium oxide	52.5 gm		Colouring agent
4.	Chloroform	2.5 ml		Preservative
5.	Peppermint Oil	0.5 ml		Flavouring agent
6.	Purified water freshly boiled and cooled	Upto 1000 ml		Vehicle

Procedure:

- Sodium hydroxide was dissolved in purified water.
- Light magnesium oxide was triturated with this solution to form a smooth cream.
- Pour this suspension in a thin stream into a solution of the magnesium sulfate in purified water, stirring continuously during the mixing.
- The mixture is set aside in a closed container for 48 hrs.
- Allow the precipitate to subside, remove the clear liquid, and wash the precipitate with purified water until the washings give only a slight reaction for sulfate.

- Mix the washed precipitate with purified water, and add sufficient purified water to produce the required volume.

Storage: It is store in well closed container in a dark and cool place.

Signa: Shake well before use.

Uses:

- Gastrointestinal agent reduces stomach acid (antacid) and also used as osmotic Laxative.
- It is a weak antacid and also used in alkaline mouth wash.
- Useful in heartburn, stomach upset and indigestion.

Observation and Evaluation:

Name of the Preparation	Test	Specification	Observation
Magnesium hydroxide mixture	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 are the antacids?
2. What is the meaning of indigestion?
3. Define the osmotic laxative.
4. Write the chemical reaction of sodium hydroxide and magnesium sulphate.
5. What is the use of light magnesium oxide in mixture?
6. What is the gastrointestinal agents?
7. What is the meaning of alkaline mouth wash?
8. What is the Milk of magnesia?
9. What is the heartburn?
10. What is stomach upset?