


**Label:**

|  |  |   |
|--|--|---|
| <p><b>Composition:</b><br/>                     50 ml contains:<br/>                     Calamine :<br/>                     Zinc Oxide :<br/>                     Bentonite :<br/>                     Sodium Citrate :<br/>                     Liquified Phenol :<br/>                     Glycerin :<br/>                     Purified Water :</p> <p><b>Uses:</b><br/>                     Used to treat sunburn, itching and skin irritation.</p> <p><b>Precaution:</b></p> <p><b>Manufactured By:</b></p> |  <p>The image shows a label for Calamine Lotion. At the top, it says 'Calamine Lotion' in large green letters next to a circular logo containing a green leaf. Below this, it reads 'Calamine Topical Suspension USP' and 'Drying Agent • Skin Protectant'. There is a decorative horizontal bar with pink, blue, and green stripes. Below the bar, it says 'Calamine lotion (50 ml)' in white text on a dark background.</p> | <p><b>Storage:</b></p> <hr/> <p><b>Mfg. lic. No.:</b><br/> <b>Batch No. :</b><br/> <b>Mfg. date :</b><br/> <b>Exp. Date :</b><br/> <b>MRP Rs :</b><br/>                     (Inclusive of all taxes)<br/> <b>Marketed By:</b></p> |
|--|--|---|

**Calculation:**

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

## Practical - 6

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

**Aim:** To prepare and submit 50 ml of Calamine lotion.

**Reference:**.....  
.....

**Requirements:**

**Apparatus/Equipment required:**.....

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

**Theory:**

Calamine, also known as calamine lotion, is a medication used to treat mild itchiness. This includes from sunburn, insect bites, poison ivy, poison oak, or other mild skin conditions. It may also help dry out skin irritation. It is applied on the skin as a cream or lotion. Side effects may include skin irritation.

**Calamine lotion Formulation Table:**

| S. No. | Chemical Name    | Quantity Given<br>(1000ml) | Quantity Taken<br>(Factor x Quantity given) | Uses of Ingredients                  |
|--------|------------------|----------------------------|---|--------------------------------------|
| 1.     | Calamine         | 150 gm                     |   | Soothing and antipruritic properties |
| 2.     | Zinc Oxide       | 50 gm                      |   | Protective                           |
| 3.     | Bentonite        | 30 gm                      |   | Stabilizer                           |
| 4.     | Sodium Citrate   | 5 gm                       |   | Controls the pH                      |
| 5.     | Liquified Phenol | 5 ml                       |   | Preservative                         |
| 6.     | Glycerin         | 50 ml                      |   | Humectants & emollient               |
| 7.     | Purified Water   | Upto 1000 ml               |   | Vehicle                              |

**Procedure:**

- Required amounts of calamine, ZnO and bentonite were weighed, placed in a mortar.
- The mixture was grinded to make them fine particles then add the glycerin, sodium citrate, liquefied phenol and small amount of water was added.
- A fine paste was made out of them, transferred to measuring cylinder, mortar was rinsed with water and rinsed water was transferred to the cylinder volume was made upto 50 ml by adding water to the cylinder.
- Transferred to dispensing bottle.
- Bottle was labeled and dispensed.

**Storage:** Store in well closed containers in a cool place. Do not freeze.

**Signa:** Shake well before use.

**Uses:** It is used to treat sunburn, itching and skin irritation caused by chickenpox, insect bites or stings and eczema. It acts as protective agent.

**Observation and Evaluation:**

| Name of the Preparation | Test        | Specification | Observation |
|-------------------------|-------------|---------------|-------------|
| <b>Calamine Lotion</b>  | Appearance  | Pink Coloured |             |
|                         | Fragrance   | Perfumed      |             |
|                         | pH          | 5-8           |             |
|                         | Consistency | Semi Liquid   |             |
|                         | Volume      | 50 ml         |             |

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

**Note:-** Calamine lotion is a formulation that prevents the UV- rays to reach the skin either by absorbing or by reflecting them.

### Questions Bank

1. Write the chemical formula of calamine.
2. What are the Soothing agents?
3. Define the antipruritic property?
4. What is the use of protective agent?
5. What is the Humectants?
6. What is the emollient?
7. Write the difference between allergy and eczema?
8. What is the chemical formula of Glycerin?
9. What is the use of liquified phenol in calamine lotion?
10. What is Bentonite?