

14. OVULES

Ovules are oval or spherical preparations consisting of active substance and base such as suppositories and applied to the vagina. The spherical ones of the ovules are called globules. The average weight of these group preparations is 5 g.

A gelatin-glycerin-water base is usually used as an ovule base. Cocoa butter, Witepsol, polyethylene glycols are also used.

The gelatin-glycerin-water base given in T.F.1974 is as follows:

| | |
|-----------|------|
| Gelatin | 2 k |
| Water | 4 k |
| Glycerine | 10 k |

Practice 14.1.

Ichtiyol ovule (Martindale 28th)
Ichtammol Pessaries

| | |
|-----------------|------|
| Ichtiyol | 5 g |
| Gelatin | 7 g |
| Glycerine | 60 g |
| Distilled water | 28 g |

Preparation:

In a capsule, the gelatin amount is soaked with water and it is left to stand until it is thoroughly swollen. Add 2/3 of glycerin over the calculated amount and heat it with stirring on the water bath. The remaining glycerin and ichtiyol are homogenized on a watch glass and mixed by adding the previous mixture. When it is still hot, liquid paraffin-lubricated mold is poured. After the frost, it is cut off with the help of a razor blade and removed from the mold. It is wrapped in lightly greased paper.

NOTE: Firstly, a mass of 5 g is prepared in the above ratio. The mold is poured out and weighed and then weighed so that the pouring mold has a base of weight. On the basis of this weight and considering the losses, the specified amount is calculated on one extra ovule.

Questions:

1. What materials does this base make up?
2. For what purpose is this medicine used?
3. What are the other names of ihtiol?

Practice 13.2.

Glycerin Suppositories (USP 27 – NF 22) *Suppositoria Glycerini Cum Sapo*

| | |
|------------------------------|--------|
| Glycerine | 3.00 g |
| Sodium carbonate monohydrate | 0.04 g |
| Stearic acid | 0.20 g |
| Distilled water | 0.50 g |

The formula is for 1 suppository.

Preparation:

The required amount of sodium carbonate monohydrate is dissolved in water and heated to 70 ° C. The top clock is covered with glass. On a water bath, it is mixed by adding stearic acid which is thoroughly melted in a capsule and brought to 70 ° C. After the soap is formed, the heated glycerin is added to the capsule. It is heated continuously for a long time until the CO₂ formation is finished and the mixture is clarified by continuously mixing with a glass rod. The molds are lightly greased with cotton soaked in liquid paraffin. Molten mass is poured into the mold. It is removed when it is cold, tightly wrapped in tin, aluminum or lightly greased paper. It is immersed in the molten solid paraffin. They are placed in tightly closed containers and labeled.

NOTE:

1. Molecular weight of sodium stearate: 306.46
2. Sodium hydroxide or sodium bicarbonate may be used in an equivalent amount to sodium carbonate monohydrate.
3. The mixture should be mixed so that no air bubbles enter. Otherwise suppositories are not transparent.

Questions:

1. Describe the role of each item in the preparation.
2. Write the equation of reaction that occurs in the preparation.
3. Why is it wrapped in a tight-lid box, aluminum or tin leaf?
4. What is the purpose of this preparation and the mechanism of action?