PHARMACE UTICAL ORGANIC CHEMISTRY-II- BP301T

UNIT: 3 Fats and Oils

CLASS: 6

TOPIC: Ester value and Iodine value

Hubls method:

Fat (or) oil sample is dissolved in carbon tetra chloride and treated with excess of standard solution of ethanolic iodine in presence of mercuric chloride unused iodine is then calculated by titration with standard sodium thio sulphate solution.

2) **Wijs method:**

This method uses iodine mono chloride in acetic acid place of iodine.

Iodine mono chloride readily combines with the double bond present in the fat and oil.

The unreacted iodine is then calculated by addition of potassium iodide and titration with standard solution of sodium thio sulphate using starch as an indicator.

Iodine value = (a-b) X 1.27 / W

a = Reading for blank titration

b = Reading for actual titration

W = Weight of the sample

Significance:

Iodine value tells the degree of unsaturation present in the fat or oil.

Higher the iodine value highly unsaturated iodine value also gives an idea of the drying characters of the fat and oil.

It helps in determinining the adulteration in the given sample of fat.

Iodine value of non drying oils = 85 to 125

Iodine value of semi drying oils = 105 to 120

Iodine value of drying oils = above 200