

 <p>BLDEA'S Shri Sanganabasava Mahaswamiji College of Pharmacy & Research Centre Vijayapur 586103</p>	DEPT: PHARMACEUTICAL CHEMISTRY	SOP NO.: BCP/PC/SOP/023
	INSTRUMENT: KARL FISCHER	PAGE NO.: 01-02
	MAKE: Remi equipment MODEL: KLF-10 PROCURED ON: 31-03-1997	EFFECTIVE DATE: 01/01/2022
	SUBJECT: SOP FOR KARL FISCHER	REVIEW PERIOD: 31/12/2022

Objective:

The following document describes the standard operating procedure for Karl-Fischer Titrator.

Scope:

The procedure is applicable for measuring water content in finished products and raw materials.

Procedure:

1. Ensure that all glass parts are clean and dry Set up the instrument and fill the reservoir with enough quantity of KF reagent
2. Turn the 2-way cock on burette towards the overflow side.
3. Press stop push button
4. Press manual push button and keep it pressed and start pumping air with the help of air bulb
5. KF reagent will start flowing in the filling tube and in the overflow tube.
6. As soon as the level in burette reaches just above the solenoid, release the manual push button. Turn the 2 way cock to stop the flow in either direction
7. Now slowly continue to pump the air till the burette is filled up to zero mark
8. For subsequent refilling of KF. reagent in burette keeps the 2-way cock closed
9. and pump the air slowly to fill the burette
10. Turn the 2-way valve towards the delivery tube side Press the manual push button and allow 3 to 4 ml of KF. reagent to disperse.
11. Takeout reaction vessel and remove the KF reagent and clean it with methanol Again fill methanol in the reaction vessel upto the level of electrode tips

1. Insert the stirrer, electrode and delivery tube
2. Now the instrument is ready to start titration by pressing the start button
3. Adjust the 2-way valve on burette for optimum flow rate This comes with practice Adjust the stirrer speed for homogenous mixing
4. As the titration reaches near to the end point the bar graph LED start glowing
5. When end point is reached, buzzer gives audio alarm and finish LED will glow to indicate end of the titration 16. Press stop button to stop buzzer.
6. Now the methanol is free of moisture. Add a weighed amount (100-150mg of sodium tartrate dihydrate. Refill the burette and start titration. (Repeat step 14 onwards)
7. When titration is finished note down the reading from burette of KF reagent consumed
8. Use the K.F. reagent consumed (in ml) in following equation to calculate the KF factor of KF. Reagent.

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