Sr. No. in Scope NABL / NON NABL

**Flow Chart for Analysis of Cartap Hydrochloride in Formulation**

|  |  |
| --- | --- |
| **Date of Analysis**  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Step**  | **Execution** | **Executed By**  |
| 1. | Sample No. |  |  |  |
| 2. | Name of Sample |  |  |  |
| 2.1 | Sample Description |  |  |  |
| **3.** | **Preparation of Standard Solution** | **R1** | **R2** |  |
| 3.1 | Weigh accurately into a 100ml volumetric flask, a quantity of Cartap hydrochloride reference standard so as to contain 80mg hydrochloride. Dissolve and make up the volume to the mark with methanol. | mg | mg |  |
| 3.2 | Note the serial number in balance logbook |  |  |  |
| **4.** | **Preparation of Sample solution:** |  |  |  |
| 4.1 |  Weigh accurately a quantity of the sample so as to contain 80mg A.I. of Cartap hydrochloride into a 100ml volumetric flask and make up to the mark with methanol. Pipette out 5ml of this solution into a 50 ml volumetric flask and make up to the mark with methanol. | mg | mg |  |
| 4.2 | Note the serial number in balance logbook |  |  |  |
| **5** | **DTNB solution:** Weigh accurately 50 mg of DTNB into a 100 ml volumetric flask. Dissolve and make up to the mark with methanol | mg | mg |  |
| 5.1 | Note the serial number in balance logbook |  |  |  |
| **6** | **Preparation of Standard Curve:** |  |  |  |
| 6.1 | Pipette out 10 ml of Cartap hydrochloride reference standard solution into a 100ml volumetric flask and make up the volume to mark with methanol. |  |  |  |
| 6.2 | Take out with a pipette 0,1,2,3 and 4ml of this solution into five separate 50 ml volumetric flasks. |  |  |  |
| 6.3 | 4,3,2,1 and 0ml of methanol into the respective flasks to get a constant volume of 4ml. |  |  |  |
| 6.4 | Add 2 ml of DTNB solution into each flask with pipette and mix well. |  |  |  |
| 6.5 | Make up the volume to the mark in all the flasks with buffer solution and again mix thoroughly. |  |  |  |
| 6.6 | Keep all the volumetric flasks for a specific period of reaction time depending on the prevailing conditions. |  |  |  |
| 6.7 | Now measure the absorbance immediately at 412nm keeping the blank solution in the reference cell and auto zero the instrument with blank. |  |  |  |
| 6.8 | After that take the readings of standards from lower to higher concentrations. Now check the calibration curve in the instrument. |  |  |  |
| 6.9 | **Estimation of sample:**  |  |  |  |
| 6.10 | Take 2 ml of the sample solution into a 50 ml volumetric flask. |  |  |  |
| 6.11 | Exactly add 2 ml of methanol followed by exactly 2 ml of DTNB solution with a pipette. |  |  |  |
| 6.12 | Mix thoroughly and make up the volume to the mark with the buffer solution. |  |  |  |
| 6.13 | Keep the flasks along with standard solution for reaction. |  |  |  |
| 6.14 | Measure the absorbance immediately at 412nm by keeping the blank solution in the reference cell. |  |  |  |
| 6.15 | Determine the quantity of the Cartap hydrochloride in the sample from the calibration curve and calculate as follows: |  |  |  |

**6. CALCULATION:**

|  |  |
| --- | --- |
|  A X 100 X 50 Cartap hydrochloride content = ----------------------------X P M X 5 X 2  | **Where,**A = Quantity of Cartap hydrochloride in mg obtained from curveM = mass in mg of the sample taken for the testP = Purity of Cartap Hydrochloride |

Replicate - 1

Replicate - 1

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis**  |
| 1. | Cartap Hydrochloride |  | % | IS 14159 – 1994(Reaffirmed 2009) |
| Remark / Reference in daily workbook : |

|  |  |  |
| --- | --- | --- |
| Analyzed by | Name  |  |
| Dated signature |  |
| Checked by | Name  |  |
| Dated signature |  |