Sr. No. in Scope NABL /NON NABL

**Flow Chart for Analysis of Metalaxyl Content in Formulation Sample**

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Step** | **Execution** | **Executed By**  |
| 1. | Sample No. |  |  |
| 2.1 | Name of Sample |
| 2.2 | Sample Description |
| 3. | **Procedure** |
| **3.1 Preparation of Internal Standard** |  |  |
| 3.1.1 | Weigh 1 g Di-octyl Pthalate taken into a 50 mlvolumetric flask |  g |  |
| 3.1.2 | Dissolve and dilute up to the mark with acetone |  |  |
| **3.2 Preparation of Standard**  |  |  |
| 3.2.1 | Weigh 0.16 to 0.17 g of the standard taken into 10 ml volumetric flask | g |  |
| 3.2.2 | Purity of standard | % |  |
| 3.2.3 | Add 10 mL internal standard solution (3.1.2) using pipette.  | ml |  |
| **3.3 Preparation of Sample**  |  |  |
| 3.3.1 | Weigh sample equivalent to 0.16 to 0.17 a. i. of the into 10 ml volumetric flask. | g |  |
| 3.3.2 | Add 5 mL of internal standard solution (3.1.2) using transfer pipette. | ml |  |
| 4. | **GC Parameters** |  |  |
| **4.1 Column** |  |  |
| 4.1.1 | Glass column, packed with 10% OV-101 on Gaschrom Q (80 - 100) mesh |  |  |
| 4.1.2 | Length: 180 cm |  |  |
| 4.1.3 | I.D.: 2 mm |  |  |
| **4.2 Gas** |  |  |
| 4.2.1 | Carrier:Nitrogen: 30 ml/min  |  |  |
| 4.2.2 |  Hydrogen: 30 ml/min |  |  |
| 4.2.3 |  Air: 300 ml/min |  |  |
| **4.3 Temperature** |  |  |
| 4.3.1 | Oven: 2100C |  |  |
| 4.3.2 | Injecter: 2250C |  |  |
| 4.3.3 | Detector: 2600C |  |  |
| **4.4 Injection volume**: 2 µl |  |  |
| **4.5 Range**:  |  |  |
|  | **4.6 Attenuation**:  |  |  |
| 5. | **Results**  |  |
| Sample chromatogram no.  |  |
| Standard chromatogram no. |  |

**6. Calculation:**

 A1 x A’IS’2 x M1

Metalaxyl content, % by mass = ------------------------ x P

 A’IS’1 x A2 x M2

**Where,**

A1 = Peak area of metalaxyl in the sample solution

A’IS’1 = Peak area of internal standard in the sample solution

A’IS’2 = Peak area of internal standard in the standard solution

A2 = Peak area of metalaxyl in the standard solution

M1 = Mass in ‘g’ of standard metalaxyl in the standard solution

M2 = Mass in ‘g’ of metalaxyl sample taken for test

P = Percent purity of metalaxyl standard

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis** |
| 1. | Active ingredient |  | % | IS 13458 : 1992(Reaffirmed 2002) |
| Remark / Reference : |

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