Sr. No. in Scope NABL / NON NABL

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Date of Analysis** | |  | |
| **Sl. No.** | **Step** | | **Execution** | **Executed By** |
| 1. | Sample No. | |  |  |
| 2. | Name of Sample | | | |
| **3.** | **Procedure** | | | |
| **3.1** | **Preparation of Internal Standard Solution** | |  |  |
| 3.1.1 | Weigh 0.56 g of Benzoic acid 2- Naphthyl ester in 100 mL volumetric flask. | | g |  |
| 3.1.2 | *Note down the serial No. of the balance log book* | |  |  |
| 3.1.3 | Dissolve and make up to the mark with Acetone | |  |  |
| **3.2** | **Preparation of Standard Solution** | | | |
| 3.2.1 | Purity of standard | | % |  |
| 3.2.2 | Weigh 0.1 g a.i. of standard in 25 mL volumetric flask | | g |  |
| 3.2.3 | *Note the serial No. of the balance log book* | |  |  |
| 3.2.4 | Add 20mL of internal standard solution (3.1.3). | | mL |  |
| 3.2.5 | Dissolve and make up to the mark with acetone. | |  |  |
| **3.3** | **Preparation of Sample Solution** | | | |
| 3.3.1 | Note down the percent active ingredient content declared on the sample | | % |  |
| 3.3.2 | Weigh 0.1 g a.i. of sample in 25 mL volumetric flask | | g |  |
| 3.3.3 | *Note down the serial No. of the balance log book.* | |  |  |
| 3.3.4 | Add 20mL of internal standard solution (3.1.3). | | mL |  |
| 3.3.5 | Dissolve and make up to the mark with acetone. | |  |  |
| **4.** | **GC Parameters** | | | |
| **4.1** | **Column:** Packed with 3% OV-225 Gaschrome Q (80-100) mesh | |  |  |
| 4.1.1 | Length X ID : 1.8 m X 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** | **Temperatures** | |  |  |
| 4.3.1 | Oven: 2250C | |  |  |
| 4.3.2 | Injector: 2500C | |  |  |
| 4.3.3 | Detector: 2800C | |  |  |
| **4.4** | **Injection volume:** 1 µl | |  |  |
| **5.** | **Results** | |  |  |
| Sample chromatogram no. | |  |  |
| Standard chromatogram no. | |  |  |

**6. Calculation:**

|  |  |
| --- | --- |
| Pretilachlor content, % by mass=  A1 x A’IS’2 x M1  -------------------------- X P  A’IS’1 x A2 x M2 | **Where,**  A1 = Peak area of pretilachlor 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 pretilachlor in the standard solution.  M1= Mass in ‘g’ of standard pretilachlor in the standard solution.  M2= Mass in ‘g’ of pretilachlor sample taken for test.  P = Percent purity of pretilachlor standard. |

**Result:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr.No.** | **Name of test** | | **Result** | | **Unit** | **Method of Analysis** |
| 1. | Active ingredient | |  | | % | **IS: 15158:2002 (Reaffirmed 2009)** |
| Remark / Reference : | | | | | | |
| Analyzed by | | Name | |  | | |
| Dated signature | |  | | |
| Checked by | | Name | |  | | |
| Dated signature | |  | | |