Sr. No. in Scope NABL/ NON NABL

 **Flow chart for analysis of Deltamethrin 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 Standard** |  |  |
| 3.1.1 | Standard weight taken in 25 ml volumetric flask | g |  |
| 3.1.2 | Purity of standard | % |  |
| 3.1.4 | Dissolve and dilute up to the mark with a mixture of dioxan and iso-octane (20 : 80) |  |  |
|  **3.2 Preparation of Sample** |  |  |
| 3.2.1 | Sample weight taken in 25 ml volumetric flask | g |  |
| 3.3.3 | Dissolve and dilute up to the mark with a mixture of dioxan and iso-octane (20 : 80) |  |  |
| 4. | **HPLC Parameters** |  |  |
| **4.1 Column** |  |  |
| 4.1.1 | S.S. Packed with Lichrosorb silica 60-80 mesh |  |  |
| 4.1.2 | Length: 15 cm |  |  |
| 4.1.3 | I.D.: 4.6 mm |  |  |
| **4.2 Mobile Phase** |  |  |
| 4.2.1 | Dioxan: iso-octane (5 : 95) |  |  |
| 4.2.2 | Flow Rate: 1.5 ml/min |  |  |
| **4.3 Detector:** Ultra-violet |  |  |
| **4.4** **Wave Length**: 254 nm |  |  |
| **4.5 Injection Volume:** 20 µl |  |  |
| 5. | **Result** |  |  |
| Sample chromatogram no.  |  |
| Standard chromatogram no.  |  |

**6. Calculation:**

 A1 x M1

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

 A2 x M2

**Where,**

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

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

 A1 = Peak Area of deltamethrin in the sample solution

 A2 = Peak Area of deltamethrin in the standard solution

 P = Percent purity of deltamethrin standard

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis**  |
|  |  |  |  |  |
| Remark / Reference : |

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