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 |  |