Sr. No. in Scope NABL / NON NABL

**Flow Chart for Analysis of Triazophos Content in formulation sample**

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Step** | | | **Execution** | **Executed By** |
| 1. | Sample No. | | |  |  |
| 2. | Name of Sample | | | | |
|  | Sample Description | | | | |
| 3. | **Procedure** | | | | |
| **3.1 Preparation of Mobile Phase** | | |  |  |
| 3.1.1 | | Mix Iso-octane and 1,4 Dioxane (saturated with 0.15% water) in the proportion of 90:10 (v/v). |  |  |
| 3.1.2 | | Pass through membrane filter under vacuum. |  |  |
| 3.1.3 | | Homogenize the mixture using a magnetic stirrer. |  |  |
| 3.1.4 | | Allow the mixture to attain room temperature. |  |  |
| **3.3 Preparation of Standard** | | |  |  |
| 3.3.1 | | Weigh standard equivalent to 110 mg of active ingredient in 50 ml volumetric flask. | g |  |
| 3.3.2 | | Note the Purity of standard | % |  |
| 3.3.3 | | Add to it 10 ml of Toluene an dissolve the standard. |  |  |
| 3.3.4 | | Dilute up to the mark with mobile phase (3.1.4). |  |  |
| 3.3.5 | | Volume of solution (3.1.4) pipette out to a 25 ml volumetric flask. | ml |  |
| 3.3.6 | | Dilute up to the mark with solvent mixture (3.1.4). |  |  |
| **3.4 Preparation of Sample** | | |  |  |
|  | | |  |  |
| 3.4.1 | | Note the Purity of sample | % |  |
| 3.4.2 | | Weigh accurately sample equivalent to 110 mg of active ingredient in 50 ml volumetric flask. | g |  |
| 3.4.3 | | Add to it 10 ml of Toluene to dissolve the sample |  |  |
| 3.4.4 | | Dilute up to the mark with solvent mixture (3.1.4) |  |  |
| 3.4.5 | | Volume of solution (3.4.4) pipette out to a 25 ml volumetric flask | ml |  |
| 3.4.7 | | Dilute up to the mark with solvent mixture (3.1.4) |  |  |
| 3.4.10 | | Dilute to the mark with solvent mixture (3.1.4) |  |  |
| 4. | **HPLC Parameters** | | |  |  |
| **4.1 Column** | | |  |  |
| 4.1.1 | Stainless Steel Packed with Silica particle size 5um | |  |  |
| 4.1.2 | Length: 250 mm | |  |  |
| 4.1.3 | I.D.: 4.6 mm | |  |  |
| **4.2 Mobile Phase** | | |  |  |
| 4.2.1 | Iso-octane and 1,4 Dioxane (90 : 10) | |  |  |
| 4.2.2 | Flow Rate: 2.0 ml/min | |  |  |
| **4.3 Detector:** UV | | |  |  |
| **4.4** **Wave Length**: 254 nm | | |  |  |
| **4.5 Injection Volume:** 20 µl | | |  |  |
| 5. | **Result** | | |  |  |
| Sample Chromatogram no. | | |  | |
| Standard Chromatogram no. | | |  | |

**6. Calculation:**

|  |  |
| --- | --- |
| A2 x M1  Triazophos content, = ------------- x P  % by mass A1 x M2 | **Where,**  M1 =Mass in ‘g’ of Triazophos standard  M2 =Mass in ‘g’ of sample taken for test  A1 = Peak area of Triazophos in the standard solution  A2 = Peak area of Triazophos in the sample solution  P = Percent purity of Triazophos in the standard |
|  | |

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis** |
| 1. | Active ingredient |  | % | IS 14936 : 2001 (Reaffirmed 2007) |
| Remark / Reference : | | | | |

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