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 solutionP = 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 |  |