Sr. No. in Scope NABL / NON NABL

**Flow Chart for analysis of Tricyclazole Content in Formulation Sample by GC**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Step** | **Execution** | | **Executed By** |
| 1. | Sample No. | **R1** | **R2** |  |
| 2.1 | Name of Sample | | |  |
| 2.2 | Sample Description | | |  |
| **3.** | **Procedure** |  |  |  |
| **3.1** | **Preparation of Internal Standard Solution** |  |  |  |
| 3.1.1 | Weigh 1.25 g of Di-Octyl Adipate (DOA) in 250 mL volumetric flask | g | g |  |
| 3.1.2 | *Note down the serial No. of the balance log book* |  |  |  |
| 3.1.3 | Dissolve in 30 mL of chloroform and make up to the mark with chloroform |  |  |  |
| **3.2** | **Preparation of Standard Solution** |  |  |  |
| 3.2.1 | Purity of standard | % | % |  |
| 3.2.2 | Weigh 0.17 g a.i. of standard in 50 mL volumetric flask and dissolve in 10 mL of chloroform. | g | g |  |
| 3.2.3 | *Note the serial No. of the balance log book* |  |  |  |
| 3.2.4 | Add 25 mL of internal standard solution (3.1.3). |  |  |  |
| 3.2.5 | Dissolve and make up to the mark with chloroform. |  |  |  |
| **3.3** | **Preparation of Sample Solution** |  |  |  |
| 3.3.1 | Note down the percent active ingredient content declared on the sample | % | % |  |
| 3.3.2 | Weigh 0.17 g a.i. of sample in 50 mL volumetric flask and dissolve in 10 mL of chloroform. | g | g |  |
| 3.3.3 | *Note down the serial No. of the balance log book.* |  |  |  |
| 3.3.4 | Add 25mL of internal standard solution (3.1.3). |  |  |  |
| 3.3.5 | Dissolve and make up to the mark with chloroform. |  |  |  |
| **4.** | **GC Parameters** |  |  |  |
| **4.1** | **Column** |  |  |  |
| 4.1.1 | Length: 200 cm |  |  |  |
| 4.1.2 | I.D: 2mm |  |  |  |
| 4.1.3 | Packed with 5% SE-30 on Chromosorb WHP (80-100) mesh |  |  |  |
| **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: 2300C |  |  |  |
| 4.3.2 | Injecter: 2500C |  |  |  |
| 4.3.3 | Detector: 2800C |  |  |  |
| **4.4** | **Injection volume:** 1 µl |  |  |  |
| **5.** | **Results** |  |  |  |
| Sample chromatogram no. |  |  |  |
| Standard chromatogram Attached to |  |  |  |

**6. Calculation:**

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

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of Test** | **Result** | **Unit** | **Method of Analysis** |
| 1. | Active ingredient |  | % | In house method |
| Remark / Reference : | | | | |

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| --- | --- | --- |
| Analyzed by | Name |  |
| Dated Signature |  |
| Checked by | Name |  |
| Dated Signature |  |