Sr. No. in Scope NABL / NON NABL

**Flow chart for analysis of Quinalphos 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 Internal Standard** |  |  |
| 3.1.1 | Weight of Di-n-butyl Phthalate (DBP) taken in 50 ml volumetric flask |  |  |
| 3.1.2 | Dissolve and dilute up to the mark with acetone |  |  |
| **3.2 Preparation of Standard**  |  |  |
| 3.2.1 | Weight of standard taken in 25 ml volumetric flask | g |  |
| 3.2.2 | Purity of standard | % |  |
| 3.2.3 | Add internal standard (3.1.2) | ml |  |
| 3.2.4 | Dilute up to the mark with Acetone. |  |  |
|  **3.3 Preparation of Sample**  |  |  |
| 3.3.1 |  Weight of sample taken in 25 ml Volumetric flask | g |  |
| 3.3.2 |  Add internal standard (3.1.2) | ml |  |
| 3.3.3 |  Dilute up to the mark with Acetone |  |  |
| 4. | **GC Parameters** |  |  |
| **4.1 Column** |  |  |
| 4.1.1 | Length: 200 cm |  |  |
| 4.1.2 | I.D: 1/8”  |  |  |
| 4.1.3 | Packed with 3 % OV 17 on Gas Chrom Q (80-100) mesh |  |  |
| **4.2 Temperature** |  |  |
| 4.2.1 | Oven: 2200C |  |  |
| 4.2.2 | Injecter: 2500C |  |  |
| 4.2.3 | Detector: 2500C |  |  |
| **4.3 Injection volume**: 2 µl |  |  |
| **4.4 Range**: 20 |  |  |
|  | **4.5 Attenuation**: -6 |  |  |
| 5. | **Results** |  |
| Sample chromatogram no.  |  |
| Standard chromatogram no. |  |

**6. Calculation:**

 A1 x A’IS’2 x M1

Quinalphos content, percent by mass = ------------------------ x P

 A’IS’1 x A2 x M2

**Where,**

A1 = Peak area of quinalphos 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 quinalphos in the standard solution

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

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

P = Percent purity of quinalphos standard

**Result:**

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

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