Sr. No. in Scope NABL /NON NABL

**Flow chart for analysis of Ethion content from formulation**

|  |  |
| --- | --- |
| **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-octyl Phthalate (DOP) taken in 250 ml Volumetric flask | g |  |
| 3.1.2 | Dissolve and dilute up to the mark with acetone |  |  |
| **3.2 Preparation of Standard** | |  |  |
| 3.2.1 | Standard weight taken in 25 ml Volumetric flask | g |  |
| 3.2.2 | Purity of standard | % |  |
| 3.2.3 | Add internal standard solution (3.1.2) | ml |  |
| 3.2.4 | Dilute up to the mark with acetone |  |  |
| **3.3 Preparation of Sample** | |  |  |
| 3.3.1 | Weigh the sample in 25 ml Volumetric flask | g |  |
| 3.3.2 | Add internal standard solution (3.1.2) | ml |  |
| 3.3.3 | Dilute up to the mark with acetone |  |  |
| 4. | **GC Parameters** | |  |  |
| **4.1 Column** | |  |  |
| 4.1.1 | S.S. Packed with5% SE-30 on Chromosorb WHP (80-100) mesh |  |  |
| 4.1.2 | Length: 200 cm |  |  |
| 4.1.3 | I.D.: 2 mm |  |  |
| **4.2 Temperature** | |  |  |
| 4.2.1 | Oven: 2400C |  |  |
| 4.2.2 | Injecter: 2600C |  |  |
| 4.2.3 | Detector: 2700C |  |  |
| **4.3 Injection volume**: 1 µl | |  |  |
| **4.4 Range**: 1 | |  |  |
|  | **4.5 Attenuation**: -3 | |  |  |
| 5. | **Results** | |  | |
| Sample chromatogram no. | |  | |
| Standard chromatogram no. | |  | |

**6. Calculation:**

A1 x A’IS’2 x M1

Ethion content, % by mass = ------------------------ x P

A’IS’1 x A2 x M2

**Where,**

A1 = Peak area of ethion 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 ethion in the standard solution

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

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

P = Percent purity of ethion standard

**Result:**

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

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