Sr. No. in Scope NABL /NON NABL

**Flow chart for analysis of Thiodicarb 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 the thymol taken into a 25 mLvolumetric flask |  mg |  |
| 3.1.2 | Dissolve and dilute up to the mark with acetonitrile |  |  |
| **3.2 Preparation of standard solution**  |  |  |
| 3.2.1 | Weight of the thiodicarb standard taken into 25 mL volumetric flask | mg |  |
| 3.2.2 | Dissolve and dilute up to the mark with acetonitrile |  |  |
| 3.2.3 | Pipette out 2 mL of (3.2.2) into 25 mL volumetric flask |  |  |
| 3.2.4 | Add internal standard solution (3.1.2) | mL |  |
| 3.2.5 | Dissolve and dilute up to the mark with acetonitrile |  |  |
| **3.3 Preparation of sample solution** |  |  |
| 3.3.1 | Weight of the thiodicarb sample taken into 25 mL volumetric flask | mg |  |
| 3.3.2 | Dissolve and dilute up to the mark with acetonitrile |  |  |
| 3.3.3 | Pipette out 2 mL of (3.3.2) into 25 mL volumetric flask |  |  |
| 3.3.4 | Add internal standard solution (3.1.2) | mL |  |
| 3.3.5 | Dissolve and dilute up to the mark with acetonitrile |  |  |
| 4. | **HPLC Parameters** |  |  |
| **4.1 Column** |  |  |
| 4.1.1 | Stainless steel C18 column,  |  |  |
| 4.1.2 | Length: 250 mm |  |  |
| 4.1.3 | I.D.: 4.6 mm |  |  |
| 4.1.4 | 5 µ particle size |  |  |
| **4.2 Flow rate:** 1.5 mL/min |  |  |
| **4.3 Detector:** 240 nm |  |  |
| **4.4 Injection volume**: 20 µL |  |  |
| 5. | **Results**  |  |
| Sample chromatogram no.  |  |
| Standard chromatogram no. |  |

**6. Calculation:**

 A3 x A2 x M1

Thiodicarb content, % by mass = ------------------

 A4 x A1 x M2

 **Where,**

M1 = mass in ‘mg’ of standard thiodicarb

M2 = mass in ‘mg’ of sample taken for the test

A1 = peak area of thiodicarb in the standard solution

A2 = peak area of thiodicarb in the sample solution

A3 = peak area of internal standard in the standard solution

A4 = peak area of internal standard in the sample solution

P = percent purity thiodicarb standard

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis** |
| 1. | Active ingredient content |  | % |  |
| Remark / Reference : |

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