Sr. No. in Scope NABL / NON NABL

**Flow chart for estimation of Copper Oxychloride content in formulation sample**

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.**  **No.** | **Step** | **Execution** | | **Executed**  **By** |
|  | Sample No. |  |  |  |
|  | Name of Sample |  |  |  |
|  | **Procedure:** | **R1** | **R2** |  |
| 3.1.1 | Weight of the sample taken in 500 ml conical flask |  |  |  |
| 3.1.2 | Add about 2 ml of conc. nitric acid |  |  |  |
| 3.1.3 | Add 20 ml of distilled water |  |  |  |
| 3.1.4 | Allow the material to dissolve by shaking then boil it for 5 min and cool down |  |  |  |
| 3.1.5 | Add about 1 g of urea and boil again for 5 min and again cool down |  |  |  |
| 3.1.6 | Add sodium carbonate small quantities until faint permanent precipitate or blue colour appears |  |  |  |
| 3.1.7 | Add dilute acetic acid solution drop wise until the blue colour (precipitate) disappears |  |  |  |
| 3.1.8 | Add approximately 2 g potassium iodide |  |  |  |
| 3.1.9 | Titrate immediately liberated iodine against standard sodium thiosulphate solution to pale straw colour |  |  |  |
| 3.1.10 | Add 1 ml of starch indicator solution (blue colour appears) & continue titration till blue colour disappears |  |  |  |
| 3.1.11 | Add about 1 to 2 g of potassium thiocyanate, if blue colour reappears continue titration until the blue colour is just discharged |  |  |  |
| 3.1.12 | End point will be blue to colorless |  |  |  |
| 3.1.13 | Note down the volume of sodium thiosulphate consumed by the sample | mL | mL |  |

1. **Calculation:**

6.35 x t x n

Copper, % by mass = -----------------------

M

**Where,**

t = Volume of standard thiosuphate solution consumed

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

n = Normality of standard sodium thiosulphate solution

6.35 = factor for copper

**Result:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl .No.** | **Name of test** | **Result** | **Unit** | **Method of Analysis** |
| 1. | Active ingredient |  | % | IS 1506 – 1977 (Reaffirmed 2007) |
| Remark / Reference : | | | | |

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