**Lampiran 12**. Perhitungan hasil pemeriksaan karakterisasi simplisia

1. Perhitungan penetapan kadar air simplisia

|  |  |  |
| --- | --- | --- |
| Berat sampel | Volume awal | Volume akhir |
| 5 g | 1,6 ml | 2 ml |
| 5 g | 1,4 ml | 1,8 ml |
| 5 g | 1,5 ml | 1,9 ml |

 **% kadar air simplisia =**$\frac{volume akhir-volume awal}{berat sampel}×100\%$

1. Berat simplisia I = 5 g

% kadar air simplisia = $\frac{2 ml-1,6 ml}{5 g} ×100\%=$ 8 %

1. Berat simplisia II = 5 g

% kadar simplisia = $\frac{1,8 ml-1,4 ml}{5 g} ×100\%=$8 %

1. Berat simplisia III = 5 g

% kadar simplisa =$\frac{1,9 ml-1,5 ml}{5 g}×100\%=$ 8%

% kadar air rata-rata = $\frac{8\% + 8\% + 8\%}{3}=8\%$

1. Penetapan kadar sari larut dalam air

|  |  |  |
| --- | --- | --- |
| Berat sampel | Berat cawan kosong | Berat cawan berisi |
| 5 g | 34,80 g | 35,02 g |
| 5 g | 34,81 g | 35,04 g |
| 5 g | 34,81 g | 35,02 g |

**% kadar sari larut dalam air =** $\frac{(cawan berisi-cawan kosong)×5}{berat sampel} ×100\%$

1. Berat simplisia I = 5 g

% kadar sari larut dalam air = $\frac{\left(35,02 g-34,80 g\right)×5 }{5 g}×100\%=22\%$

1. Berat simplisia II = 5 g

% kadar sari larut dalam air = $\frac{\left(35,04 g-34.81 g\right)×5}{5 g}×100\%=20 \%$

1. Berat simplisia III = 5 g

% kadar sari larut dalam air = $\frac{\left(35,02 g-34,81 g\right)×5}{5 g}×100\%=21 \%$

**Lampiran 12**. (lanjutan)

% kadar sari rata-rata=$\frac{22 \%+20\%+21\%}{3}=21\%$

1. Penetapan kadar sari dalam etanol

|  |  |  |
| --- | --- | --- |
| Berat sampel | Berat cawan kosong | Berat cawan berisi |
| 5 g | 34,86 g | 35,06 g |
| 5 g | 34,88 g | 35,07 g |
| 5 g | 34,87 g | 35,06 g |

 **% kadar sari larut dalam etanol =** $\frac{\left(berat cawan berisi-berat cawan kosong\right)×5}{berat sampel}×100\%$

1. Berat simplisia I = 5 g

% kadar sari larut etanol = $\frac{\left(35,06g-34,86g\right)×5}{5 g}×100\%=$20%

1. Berat simplisia II = 5 g

% kadar sari larut etanol = $\frac{\left(35,07g-34,88g\right)×5}{5 g}×100\%=19\%$

1. Berat simpliasi III = 5 g

% kadar sari larut etanol = $\frac{\left(35,06g-34,87g\right)×5}{5 g}×100\%=19\%$

% kadar sari larut etanol rata-rata = $\frac{20\%+19\%+19\%}{3}$ = 19,3%

1. Penetapan kadar abu total

|  |  |
| --- | --- |
| Berat sampel | Berat abu |
| 2,0001 g | 2,02 g |
| 2,0005 g | 1,98 g |
| 2,0008 g | 1,98 g |

***Kadar abu total =*** $\frac{berat abu}{berat sampel}×100\%$

1. % kadar abu total I = $\frac{2,02}{2,0001}×100\%=1,009\%$
2. % kadar abu total II =$\frac{1,98}{2,0005}×100\%=0,98\%$
3. % kadar abu total III=$\frac{1,98}{2,0008}×100\%=0,98\%$

% Kadar abu total rata-rata = $\frac{1,009+0,98+0,98}{3} =0,98$

**Lampiran 12.** (lanjutan)

1. Penetapan kadar abu tidak larut asam

|  |  |
| --- | --- |
| Berat sampel | Berat abu |
| 2,0001 g | 0,009 g |
| 2,0001 g | 0,03 g |
| 2,0000 g | 0,02 g |

Kadar abu tidak larut dalam asam*=* $\frac{berat abu}{berat sampel}×100\%$

1. Kadar abu tidak larut dalam asam I = $\frac{0,009}{2,0001}×100=0,449\%$
2. Kadar abu tidak larut dalam asam II = $\frac{0,03}{2,0001}×100=1,4\%$
3. Kadar abu tidak larut dalam asam III = $\frac{0,02}{2,0000}×100=1\%$

Kadar abu tidak larut dalam asam rata-rata = $\frac{0,449+1,4+1}{3}×100=0,949\%$