

## LAMPIRAN

### Lampiran 1 Dokumentasi Penelitian



Alat yang diperlukan untuk membuat yogurt



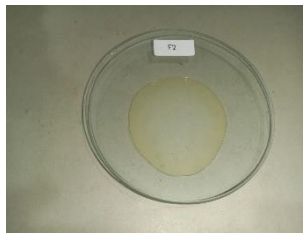
Proses pembuatan yogurt



Alat yang diperlukan untuk membuat sediaan *hair tonic*



Uji organoleptik sediaan *hair tonic*



Uji Homogenitas



Uji pH



Uji Viskositas



Uji Bobot Jenis



Ekstrak Daun Sirih Hijau



Cycling test kulkas 4°C



Cycling test oven 40°C



Spektrofotometri



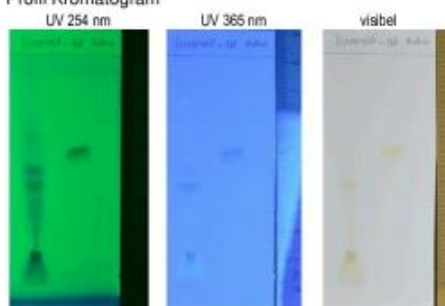


## SERTIFIKAT ANALISIS

Nama Produk : Ekstrak Sirih Hijau  
 Nama Botani : *Piper betle*  
 No. Batch : 2302/HU/163  
 Sediaan : Ekstrak Kental

| Parameter Uji | Hasil     | Metode       |
|---------------|-----------|--------------|
| Warna         | Kehitaman | Organoleptik |
| Bau           | Khas      | Organoleptik |
| Rasa          | Pahit     | Organoleptik |
| Kadar Air     | 7,51 %    | Gravimetri   |
| Kadar Abu     | 0,08 %    | Gravimetri   |
| Flavonoid     | Positif   | TLC          |

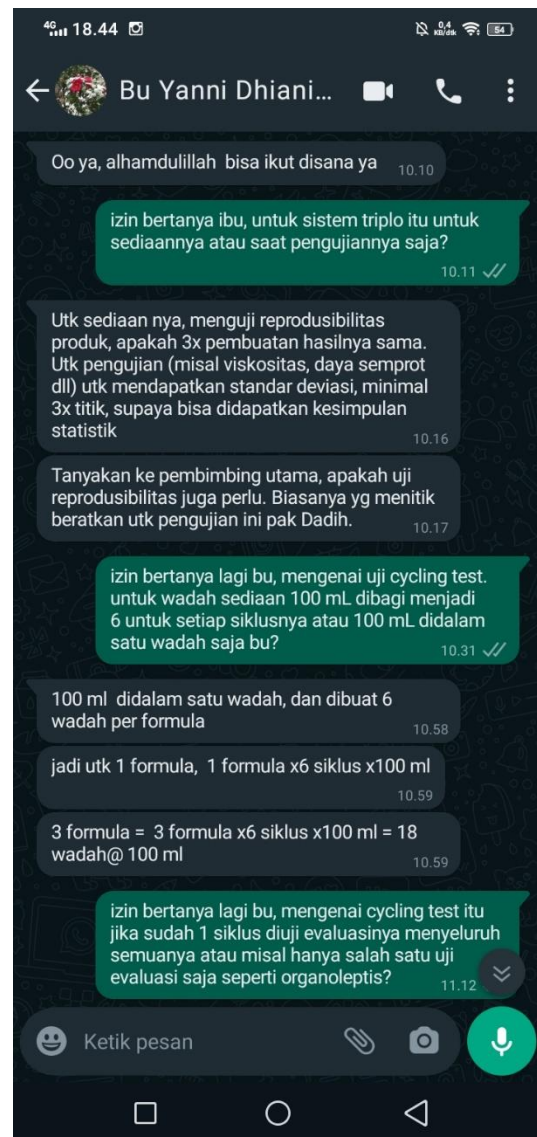
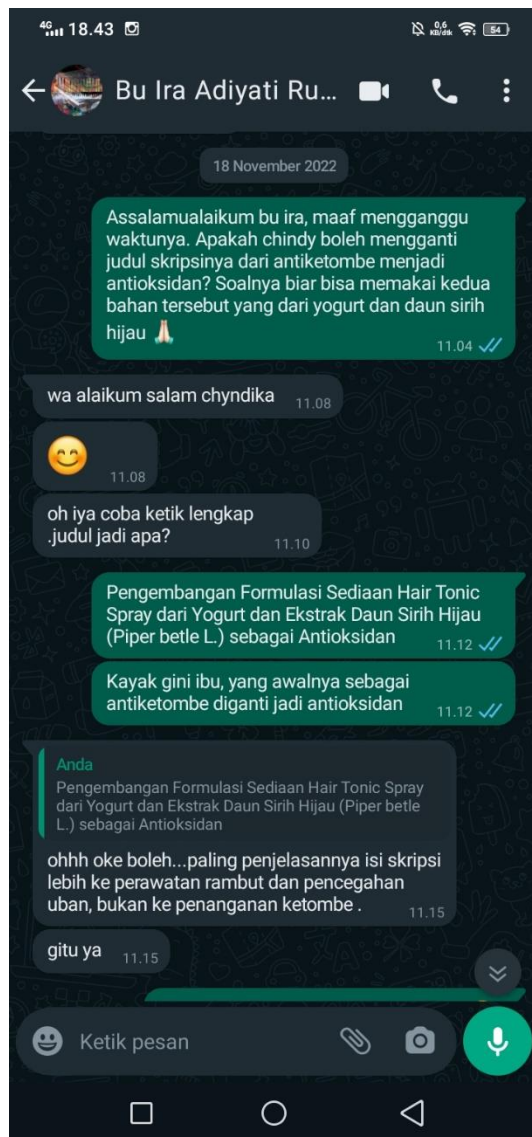
Profil Kromatogram



Kiri : Ekstrak Sirih Hijau  
 Kanan : Flavonoid Rutin

Fase Gerak : Etil asetat : asam formiat : asam asetat : air (100:11:11:26)  
 Fase Diam : Silicagel 60 F254 (Al - Sheet)  
 Pereaksi : Aluminium Chloride 10%

### Lampiran 3 Dokumentasi Bimbingan Dengan Dosen Pembimbing



Lampiran 4 Kartu Bimbingan

**KARTU BIMBINGAN TUGAS AKHIR I/TUGAS AKHIR II**

|                  |                                           |
|------------------|-------------------------------------------|
| Pembimbing Utama | : Ira Adiyati Rum, M. Si                  |
| Nama Mahasiswa   | : Chindyka Oktaviana Khasanah             |
| NPM              | : 191FF03032                              |
| Bidang Ilmu      | : FTF (Farmasetika dan Teknologi Farmasi) |

| No. | Hari/Tanggal            | Waktu | Tempat            | Materi                                       | Paraf Dosen                                                                           |
|-----|-------------------------|-------|-------------------|----------------------------------------------|---------------------------------------------------------------------------------------|
| 1.  | Jumat, 24 Februari 2023 | 12.30 | Kampus UBK        | Meminta ttd surat permohonan ijin penelitian |    |
| 2.  | Minggu, 05 Maret 2023   | 11.30 | Lobi hotel shakti | Revisi proposal                              |    |
| 3.  | Rabu, 08 Maret 2023     | 13.00 | Rumah dospem      | Latihan pembuatan yogurt                     |   |
| 4.  | Senin, 13 Maret 2023    | 10.00 | Rumah dospem      | Bimbingan proposal                           |  |
| 5.  | Selasa, 14 Maret 2023   | 10.00 | Rumah dospem      | Bimbingan proposal                           |  |
| 6.  | Minggu, 26 Maret 2023   | 22.00 | Email             | Revisi proposal                              |  |
| 7.  | Selasa, 28 Maret 2023   | 13.00 | Email             | Revisi proposal                              |  |
| 8.  | Senin, 03 April 2023    | 08.00 | Google Meet       | Revisi proposal                              |  |
| 9.  | Sabtu, 15 April 2023    | 08.00 | Google Meet       | Seminar KK dan Bimbingan proposal            |  |
| 10. | Kamis, 11 Mei 2023      | 12.45 | WhatsApp          | Progress membuat formula sediaan hair tonic  |  |
| 11. | Senin, 15 Mei 2023      | 16.00 | WhatsApp          | Progress sudah membuat yogurt                |  |
| 12. | Kamis, 18 Mei 2023      | 22.00 | Email             | Ppt seminar kk laporan kemajuan 2            |  |

|                                                                                                                                                          |                      |       |            |                                    |                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------|------------|------------------------------------|--------------------------------------------------------------------------------------------|
|  <b>Fakultas Farmasi</b><br><b>Universitas</b><br><b>Bhakti Kencana</b> |                      |       |            |                                    |                                                                                            |
| 13.                                                                                                                                                      | Selasa, 13 Juni 2023 | 07.00 | Gmeet      | Progress ngelab                    | bsi<br> |
| 14.                                                                                                                                                      | Sabtu, 17 Juni 2023  | 14.00 | Gmeet      | Progress ngelab                    | nm.                                                                                        |
| 15.                                                                                                                                                      | Sabtu, 24 Juni 2023  | 14.00 | WhatsApp   | Bimbingan mengenai uji antioksidan | nm.                                                                                        |
| 16.                                                                                                                                                      | Senin, 03 Juli 2023  | 18.00 | Email      | Mengirimkan pembahasan proposal    | nm.                                                                                        |
| 17.                                                                                                                                                      | Senin, 10 Juli 2023  | 08.00 | Kampus UBK | Meminta ttd lembar pengesahan      | nm.                                                                                        |
|                                                                                                                                                          |                      |       |            |                                    |                                                                                            |
|                                                                                                                                                          |                      |       |            |                                    |                                                                                            |
|                                                                                                                                                          |                      |       |            |                                    |                                                                                            |

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

**KARTU BIMBINGAN TUGAS AKHIR I/TUGAS AKHIR II**

|                  |                                           |
|------------------|-------------------------------------------|
| Pembimbing Serta | : apt. Yanni Dhiani Mardhiani, M.Bsc.     |
| Nama Mahasiswa   | : Chindyka Oktaviana Khasanah             |
| NPM              | : 191FF03032                              |
| Bidang Ilmu      | : FTF (Farmasetika dan Teknologi Farmasi) |

| No. | Hari/Tanggal            | Waktu | Tempat            | Materi                                                      | Paraf Dosen                                                                           |
|-----|-------------------------|-------|-------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1.  | Jumat, 28 Februari 2023 | 11.00 | Email             | Meminta ttd surat permohonan ijin penelitian                |    |
| 2.  | Minggu, 05 Maret 2023   | 11.30 | Lobi hotel shakti | Bimbingan proposal                                          |    |
| 3.  | Senin, 03 April 2023    | 10.00 | Google Meet       | Bimbingan proposal                                          |    |
| 4.  | Senin, 17 April 2023    | 10.00 | Google Meet       | Seminar KK dan Bimbingan proposal                           |    |
| 5.  | Senin, 08 Mei 2023      | 09.30 | WhatsApp          | Bimbingan formula sediaan hair tonic                        |    |
| 6.  | Selasa, 16 Mei 2023     | 09.00 | WhatsApp          | Bimbingan alat uji evaluasi sediaan hair tonic              |   |
| 7.  | Selasa, 23 Mei 2023     | 10.00 | WhatsApp          | Bimbingan alat uji evaluasi dan evaluasi sediaan hair tonic |  |
| 8.  | Senin, 29 Mei 2023      | 12.00 | WhatsApp          | Bimbingan evaluasi sediaan hair tonic                       |  |
| 9.  | Sabtu, 24 Juni 2023     | 13.30 | WhatsApp          | Bimbingan mengenai uji antioksidan                          |  |
| 10. | Sabtu, 08 Juli 2023     | 09.00 | Rumah dospem      | Meminta ttd lembar pengesahan                               |  |
|     |                         |       |                   |                                                             |                                                                                       |
|     |                         |       |                   |                                                             |                                                                                       |

Catatan : Kartu ini harus dibawa setiap kali melakukan bimbingan dan harus diisi oleh dosen pembimbing.

## Lampiran 5 Dokumentasi Pembuatan Yogurt



Lampiran 6 Hasil Optimasi Basis *Hair Tonic*

| Bahan           | Formula (%) |        |        |
|-----------------|-------------|--------|--------|
|                 | B1          | B2     | B3     |
| Etanol 96%      | 30          | 20     | 10     |
| Propilen Glikol | 10          | 15     | 20     |
| DMDM Hydantoin  | 0,6         | 0,6    | 0,6    |
| Menthol         | 0,1         | 0,1    | 0,1    |
| Aquadest        | ad 100      | ad 100 | ad 100 |

Diperoleh hasil basis terbaik yaitu pada basis 1 dikarenakan pada basis 2 dan 3 sediaan yang dihasilkan lebih kental dibandingkan dengan basis 1 dan aroma yang dikeluarkan oleh basis 2 dan 3 tidak enak untuk dihirup setelah disimpan pada suhu ruang selama seminggu.

## Lampiran 7 Dokumentasi Sediaan *Hair Tonic Cycling Test*



Lampiran 8 Data Evaluasi Organoleptik *Cycling Test*

| Formulasi | Pengamatan | Siklus ke - |     |     |     |     |     |     |
|-----------|------------|-------------|-----|-----|-----|-----|-----|-----|
|           |            | 0           | 1   | 2   | 3   | 4   | 5   | 6   |
| F0        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKM         | BKM | BKM | BKM | BKM | BKM | BKM |
|           | Warna      | PJ          | PJ  | PJ  | PJ  | PJ  | PJ  | PJ  |
| F1        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKM         | BKM | BKM | BKM | BKM | BKM | BKM |
|           | Warna      | PK          | PK  | PK  | PK  | PK  | PK  | PK  |
| F2        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE         | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CT          | CT  | CT  | CT  | CT  | CT  | CT  |
| F3        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE         | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CM          | CM  | CM  | CM  | CM  | CM  | CM  |
| F4        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKY         | BKY | BKY | BKY | BKY | BKY | BKY |
|           | Warna      | KK          | KK  | KK  | KK  | KK  | KK  | KK  |
| F5        | Bentuk     | C           | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE         | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CK          | CK  | CK  | CK  | CK  | CK  | CK  |

**Keterangan:**

C = Cair

BKM = Bau Khas Menthol

BKE = Bau Khas Ekstrak Daun Sirih Hijau

BKY = Bau Khas Yogurt

PJ = Putih Jernih

PK = Putih Keruh

CT = Coklat Tua

CM = Coklat Muda

KK = Kuning Kecoklatan

CK = Coklat Keruh

Lampiran 9 Data Evaluasi Uji Homogenitas *Cycling Test*

| Formulasi | Siklus ke - |   |   |   |   |   |   |
|-----------|-------------|---|---|---|---|---|---|
|           | 0           | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>F0</b> | H           | H | H | H | H | H | H |
| <b>F1</b> | H           | H | H | H | H | H | H |
| <b>F2</b> | H           | H | H | H | H | H | H |
| <b>F3</b> | H           | H | H | H | H | H | H |
| <b>F4</b> | H           | H | H | H | H | H | H |
| <b>F5</b> | H           | H | H | H | H | H | H |

Lampiran 10 Data Evaluasi Uji pH *Cycling Test*

| Formula | Siklus ke - |      |      |      |      |      |      |
|---------|-------------|------|------|------|------|------|------|
|         | 0           | 1    | 2    | 3    | 4    | 5    | 6    |
| F0      | 6,64        | 6,57 | 6,65 | 6,64 | 6,57 | 6,41 | 6,59 |
|         | 6,65        | 6,52 | 6,64 | 5,97 | 6,15 | 6,55 | 6,57 |
|         | 6,67        | 6,51 | 6,67 | 5,94 | 6,17 | 6,57 | 6,55 |
| F1      | 5,25        | 5    | 5,3  | 5,06 | 4,95 | 5,11 | 4,96 |
|         | 5,28        | 5,03 | 5,33 | 5,09 | 4,92 | 5,11 | 4,98 |
|         | 5,26        | 4,99 | 5,3  | 5,04 | 4,93 | 5,1  | 4,99 |
| F2      | 6,32        | 6,04 | 6,3  | 5,84 | 5,73 | 5,85 | 5,74 |
|         | 6,33        | 6,07 | 6,26 | 5,87 | 5,78 | 5,87 | 5,78 |
|         | 6,33        | 6,04 | 6,21 | 5,89 | 5,79 | 5,88 | 5,78 |
| F3      | 5,38        | 5,27 | 5,45 | 5,24 | 5,16 | 5,26 | 5,21 |
|         | 5,42        | 5,19 | 5,43 | 5,2  | 5,13 | 5,23 | 5,15 |
|         | 5,38        | 5,24 | 5,43 | 5,16 | 5,11 | 5,25 | 5,14 |
| F4      | 5,12        | 5,01 | 5,22 | 4,99 | 4,91 | 4,98 | 4,97 |
|         | 5,1         | 5    | 5,2  | 4,95 | 4,87 | 4,97 | 4,95 |
|         | 5,11        | 5    | 5,14 | 4,92 | 4,71 | 4,91 | 4,93 |
| F5      | 5,24        | 5,19 | 5,33 | 5,07 | 4,88 | 5,05 | 5,04 |
|         | 5,26        | 5,18 | 5,29 | 5,06 | 4,84 | 5,05 | 5,02 |
|         | 5,27        | 5,23 | 5,28 | 5,07 | 4,83 | 5,05 | 5,01 |

Rata-Rata Uji pH

| Formula | Siklus ke - |           |           |           |           |           |           |
|---------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
|         | 0           | 1         | 2         | 3         | 4         | 5         | 6         |
| F0      | 6,65±0,02   | 6,53±0,03 | 6,65±0,02 | 6,18±0,40 | 6,30±0,24 | 6,51±0,09 | 6,57±0,02 |
| F1      | 5,26±0,02   | 5,01±0,02 | 5,31±0,02 | 5,06±0,03 | 4,93±0,02 | 5,11±0,01 | 4,98±0,02 |
| F2      | 6,33±0,01   | 6,05±0,02 | 6,26±0,05 | 5,87±0,03 | 5,77±0,03 | 5,87±0,02 | 5,77±0,02 |
| F3      | 5,39±0,02   | 5,23±0,04 | 5,44±0,01 | 5,20±0,04 | 5,13±0,03 | 5,25±0,02 | 5,17±0,04 |
| F4      | 5,11±0,01   | 5,00±0,01 | 5,19±0,04 | 4,95±0,04 | 4,83±0,11 | 4,95±0,04 | 4,95±0,02 |
| F5      | 5,26±0,02   | 5,20±0,03 | 5,30±0,03 | 5,07±0,01 | 4,85±0,03 | 5,05±0,00 | 5,02±0,02 |

## Evaluasi Uji pH *Cycling Test*

### Test of Homogeneity of Variances

Uji pH

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 3.437            | 5   | 48  | .010 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji pH *cycling test* memiliki nilai signifikansi yaitu 0,010 dimana **tidak homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji pH

|                | Sum of Squares | df | Mean Square | F       | Sig. |
|----------------|----------------|----|-------------|---------|------|
| Between Groups | 17.057         | 5  | 3.411       | 126.450 | .000 |
| Within Groups  | 1.295          | 48 | .027        |         |      |
| Total          | 18.352         | 53 |             |         |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji pH *cycling test* memiliki nilai signifikansi yaitu 0,000 dimana **ada perbedaan** yang signifikan karena nilainya  $<0,05$ .

Lampiran 11 Data Evaluasi Uji Bobot Jenis *Cycling Test*

| Formula | Siklus ke - |       |       |       |       |       |       |
|---------|-------------|-------|-------|-------|-------|-------|-------|
|         | 0           | 1     | 2     | 3     | 4     | 5     | 6     |
| F0      | 0,99        | 0,988 | 0,985 | 0,986 | 0,992 | 0,985 | 0,983 |
|         | 0,984       | 0,987 | 0,983 | 0,985 | 0,988 | 0,985 | 0,995 |
|         | 0,989       | 0,984 | 0,982 | 0,993 | 0,987 | 0,989 | 0,985 |
| F1      | 0,997       | 0,997 | 0,998 | 0,991 | 0,985 | 0,992 | 0,99  |
|         | 0,999       | 0,989 | 0,994 | 0,997 | 0,991 | 0,997 | 0,988 |
|         | 0,999       | 0,988 | 0,991 | 0,99  | 0,994 | 0,98  | 0,987 |
| F2      | 0,995       | 0,997 | 0,999 | 0,998 | 1,003 | 0,999 | 0,997 |
|         | 0,996       | 0,992 | 0,998 | 0,997 | 0,998 | 0,994 | 0,998 |
|         | 1,001       | 1,001 | 0,998 | 0,998 | 0,995 | 0,997 | 1     |
| F3      | 0,991       | 0,989 | 0,986 | 0,988 | 0,981 | 0,989 | 0,997 |
|         | 0,988       | 0,984 | 0,983 | 0,984 | 0,986 | 0,986 | 0,995 |
|         | 0,988       | 0,992 | 0,989 | 0,986 | 0,994 | 0,997 | 0,996 |
| F4      | 0,995       | 0,992 | 0,989 | 0,988 | 0,991 | 0,989 | 0,986 |
|         | 0,985       | 0,988 | 0,986 | 0,987 | 0,988 | 0,985 | 0,986 |
|         | 0,99        | 0,989 | 0,993 | 0,996 | 0,993 | 0,997 | 0,994 |
| F5      | 0,995       | 0,986 | 1,001 | 0,985 | 1     | 0,994 | 0,987 |
|         | 0,984       | 0,998 | 0,99  | 0,999 | 0,989 | 0,991 | 0,993 |
|         | 0,997       | 1     | 0,994 | 0,997 | 0,99  | 0,992 | 0,992 |

Rata-Rata Uji Bobot Jenis

| Formula | Siklus ke -      |                  |                  |                  |                  |                  |                  |
|---------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|         | 0                | 1                | 2                | 3                | 4                | 5                | 6                |
| F0      | 0,99±0,003<br>2  | 0,99±0,002<br>1  | 0,98±0,001<br>5  | 0,99±0,004<br>4  | 0,99±0,002<br>6  | 0,99±0,002<br>3  | 0,99±0,006<br>4  |
| F1      | 0,998±0,00<br>12 | 0,99±0,004<br>9  | 0,99±0,003<br>5  | 0,99±0,003<br>8  | 0,99±0,004<br>6  | 0,99±0,008<br>7  | 0,99±0,001<br>5  |
| F2      | 0,997±0,00<br>32 | 0,997±0,00<br>45 | 0,998±0,00<br>06 | 0,998±0,00<br>06 | 0,999±0,00<br>40 | 0,997±0,00<br>25 | 0,998±0,00<br>15 |
| F3      | 0,99±0,001<br>7  | 0,99±0,004<br>0  | 0,99±0,002<br>0  | 0,99±0,002<br>0  | 0,99±0,006<br>6  | 0,99±0,005<br>7  | 0,996±0,00<br>10 |
| F4      | 0,99±0,005<br>0  | 0,99±0,002<br>1  | 0,99±0,004<br>9  | 0,99±0,004<br>9  | 0,99±0,002<br>5  | 0,99±0,006<br>1  | 0,99±0,004<br>6  |
| F5      | 0,99±0,007<br>0  | 0,99±0,007<br>6  | 0,995±0,00<br>76 | 0,99±0,007<br>6  | 0,99±0,006<br>1  | 0,99±0,001<br>5  | 0,99±0,003<br>2  |

## Evaluasi Uji Bobot Jenis *Cycling Tets*

### Test of Homogeneity of Variances

Uji bobot jenis

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 2.885            | 5   | 48  | .023 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji bobot jenis *cycling test* memiliki nilai signifikansi yaitu 0,023 dimana **tidak homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji bobot jenis

|                | Sum of Squares | df | Mean Square | F     | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | .000           | 5  | .000        | 9.712 | .000 |
| Within Groups  | .000           | 48 | .000        |       |      |
| Total          | .001           | 53 |             |       |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji bobot jenis *cycling test* memiliki nilai signifikansi yaitu 0,000 dimana **ada perbedaan** yang signifikan karena nilainya  $<0,05$ .

Lampiran 12 Data Evaluasi Uji Viskositas *Cycling Test*

| Formula | Siklus ke - |        |        |        |        |        |        |
|---------|-------------|--------|--------|--------|--------|--------|--------|
|         | 0           | 1      | 2      | 3      | 4      | 5      | 6      |
| F0      | 1,3641      | 1,5215 | 1,3572 | 1,2787 | 1,4472 | 1,2774 | 1,4341 |
|         | 1,4356      | 1,36   | 1,5935 | 1,3572 | 1,2812 | 1,3572 | 1,2903 |
|         | 1,4429      | 1,4356 | 1,5122 | 1,3682 | 1,36   | 1,523  | 1,3572 |
| F1      | 1,1313      | 1,2121 | 1,0515 | 1,2851 | 1,1177 | 1,0452 | 1,2036 |
|         | 1,2145      | 1,0421 | 0,9668 | 1,1313 | 1,2851 | 1,1313 | 1,2812 |
|         | 1,2955      | 1,1211 | 1,1245 | 1,2036 | 1,2085 | 0,9531 | 1,04   |
| F2      | 1,0484      | 0,9697 | 1,0526 | 1,1324 | 1,0568 | 1,2955 | 0,9697 |
|         | 1,0494      | 0,9648 | 0,8898 | 0,9697 | 0,8898 | 1,0473 | 1,1324 |
|         | 1,1358      | 1,217  | 0,9706 | 1,0515 | 0,9677 | 1,1313 | 1,0536 |
| F3      | 0,9638      | 0,9619 | 0,8791 | 0,8008 | 1,0336 | 0,8817 | 1,0505 |
|         | 0,8808      | 1,0368 | 1,1154 | 0,957  | 1,1188 | 0,959  | 0,9677 |
|         | 1,041       | 0,9648 | 0,9619 | 1,0389 | 0,9668 | 0,8081 | 1,0494 |
| F4      | 1,4516      | 1,5277 | 1,2825 | 1,456  | 1,2851 | 1,2825 | 1,3586 |
|         | 1,2774      | 1,2812 | 1,4385 | 1,36   | 1,5215 | 1,437  | 1,3586 |
|         | 1,3641      | 1,4429 | 1,3682 | 1,2109 | 1,456  | 1,3737 | 1,289  |
| F5      | 1,0484      | 1,1987 | 1,1358 | 1,0378 | 1,2158 | 0,9668 | 1,04   |
|         | 1,1963      | 1,0515 | 0,9629 | 1,2145 | 0,8817 | 1,0442 | 1,1268 |
|         | 1,1313      | 1,2968 | 1,0473 | 1,1313 | 1,0431 | 1,1256 | 1,1256 |

Rata-Rata Uji Viskositas

| Formula | Siklus ke - |           |           |           |           |           |           |
|---------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
|         | 0           | 1         | 2         | 3         | 4         | 5         | 6         |
| F0      | 1,41±0,04   | 1,44±0,08 | 1,49±0,12 | 1,33±0,05 | 1,36±0,08 | 1,39±0,13 | 1,36±0,07 |
| F1      | 1,21±0,08   | 1,13±0,09 | 1,05±0,08 | 1,21±0,08 | 1,20±0,08 | 1,04±0,09 | 1,17±0,12 |
| F2      | 1,08±0,05   | 1,05±0,14 | 0,97±0,08 | 1,05±0,08 | 0,97±0,08 | 1,16±0,13 | 1,05±0,08 |
| F3      | 0,96±0,08   | 0,99±0,04 | 0,99±0,12 | 0,93±0,08 | 1,04±0,08 | 0,88±0,08 | 1,02±0,05 |
| F4      | 1,36±0,09   | 1,42±0,13 | 1,36±0,08 | 1,34±0,12 | 1,42±0,12 | 1,36±0,08 | 1,34±0,04 |
| F5      | 1,13±0,07   | 1,18±0,12 | 1,05±0,09 | 1,13±0,17 | 1,05±0,17 | 1,05±0,08 | 1,10±0,05 |

## Evaluasi Uji Viskositas *Cycling Tets*

### Test of Homogeneity of Variances

Uji viskositas

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| .564             | 5   | 48  | .727 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji viskositas *cycling test* memiliki nilai signifikansi yaitu 0,727 dimana **homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji viskositas

|                | Sum of Squares | df | Mean Square | F      | Sig. |
|----------------|----------------|----|-------------|--------|------|
| Between Groups | 1.360          | 5  | .272        | 69.112 | .000 |
| Within Groups  | .189           | 48 | .004        |        |      |
| Total          | 1.549          | 53 |             |        |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji viskositas *cycling test* memiliki nilai signifikansi yaitu 0,000 dimana **ada perbedaan** yang signifikan karena  $<0,05$ .

### Lampiran 13 Dokumentasi Sediaan *Hair Tonic Spray* Suhu Ruang



Lampiran 14 Data Evaluasi Uji Organoleptik Suhu Ruang

| Formulasi | Pengamatan | Hari ke - |     |     |     |     |     |     |     |
|-----------|------------|-----------|-----|-----|-----|-----|-----|-----|-----|
|           |            | 0         | 1   | 3   | 5   | 7   | 14  | 21  | 28  |
| F0        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKM       | BKM | BKM | BKM | BKM | BKM | BKM | BKM |
|           | Warna      | PJ        | PJ  | PJ  | PJ  | PJ  | PJ  | PJ  | PJ  |
| F1        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKM       | BKM | BKM | BKM | BKM | BKM | BKM | BKM |
|           | Warna      | PK        | PK  | PK  | PK  | PK  | PK  | PK  | PK  |
| F2        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE       | BKE | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CT        | CT  | CT  | CT  | CT  | CT  | CT  | CT  |
| F3        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE       | BKE | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CM        | CM  | CM  | CM  | CM  | CM  | CM  | CM  |
| F4        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKY       | BKY | BKY | BKY | BKY | BKY | BKY | BKY |
|           | Warna      | KK        | KK  | KK  | KK  | KK  | KK  | KK  | KK  |
| F5        | Bentuk     | C         | C   | C   | C   | C   | C   | C   | C   |
|           | Aroma      | BKE       | BKE | BKE | BKE | BKE | BKE | BKE | BKE |
|           | Warna      | CK        | CK  | CK  | CK  | CK  | CK  | CK  | CK  |

**Keterangan:**

C = Cair

BKM = Bau Khas Menthol

BKE = Bau Khas Ekstrak Daun Sirih Hijau

BKY = Bau Khas Yogurt

PJ = Putih Jernih

PK = Putih Keruh

CT = Coklat Tua

CM = Coklat Muda

KK = Kuning Kecoklatan

CK = Coklat Keruh

# Lampiran 15 Data Evaluasi Uji Homogenitas Suhu Ruang

| Formula   | Hari ke - |   |   |   |   |    |    |    |
|-----------|-----------|---|---|---|---|----|----|----|
|           | 0         | 1 | 3 | 5 | 7 | 14 | 21 | 28 |
| <b>F0</b> | H         | H | H | H | H | H  | H  | H  |
| <b>F1</b> | H         | H | H | H | H | H  | H  | H  |
| <b>F2</b> | H         | H | H | H | H | H  | H  | H  |
| <b>F3</b> | H         | H | H | H | H | H  | H  | H  |
| <b>F4</b> | H         | H | H | H | H | H  | H  | H  |
| <b>F5</b> | H         | H | H | H | H | H  | H  | H  |

## Keterangan:

H = Homogen

Lampiran 16 Data Evaluasi Uji pH Suhu Ruang Replikasi 1

| Formula | Hari ke - |      |      |      |      |      |      |      |
|---------|-----------|------|------|------|------|------|------|------|
|         | 0         | 1    | 3    | 5    | 7    | 14   | 21   | 28   |
| F0      | 6,18      | 5,53 | 5,54 | 5,79 | 5,28 | 5,95 | 5,27 | 5,28 |
|         | 5,74      | 5,52 | 5,43 | 5,31 | 5,08 | 6,02 | 5,13 | 5,16 |
|         | 5,57      | 5,58 | 5,5  | 5,35 | 5,18 | 5,6  | 5,13 | 5,05 |
| F1      | 4,88      | 4,75 | 4,8  | 4,86 | 4,84 | 5,51 | 4,88 | 4,87 |
|         | 4,84      | 4,81 | 4,83 | 4,84 | 4,84 | 5,53 | 4,83 | 4,81 |
|         | 4,83      | 4,82 | 4,83 | 4,85 | 4,84 | 5,51 | 4,85 | 4,84 |
| F2      | 6,14      | 6,13 | 6,17 | 6,03 | 6,13 | 6,44 | 6,06 | 6,25 |
|         | 6,1       | 6,17 | 6,19 | 6,07 | 6,15 | 6,5  | 6,1  | 6,27 |
|         | 6,08      | 6,04 | 6,1  | 6,1  | 6,17 | 6,52 | 6,14 | 6,29 |
| F3      | 5,21      | 5,16 | 5,14 | 5,37 | 5,29 | 5,87 | 5,27 | 5,37 |
|         | 5,06      | 5,15 | 5,14 | 5,27 | 5,29 | 5,8  | 5,27 | 5,21 |
|         | 5,12      | 5,15 | 5,19 | 5,3  | 5,3  | 5,8  | 5,18 | 5,23 |
| F4      | 5,11      | 5,06 | 5,05 | 5,17 | 5,14 | 5,68 | 5,13 | 5,09 |
|         | 5,07      | 5,03 | 5,05 | 5,16 | 5,13 | 5,72 | 5,13 | 5,1  |
|         | 5,05      | 5,02 | 5    | 5,16 | 5,17 | 5,68 | 5,14 | 4,98 |
| F5      | 5,21      | 5,23 | 5,19 | 5,23 | 5,23 | 5,74 | 5,22 | 5,2  |
|         | 5,21      | 5,17 | 5,18 | 5,19 | 5,26 | 5,75 | 5,15 | 5,25 |
|         | 5,24      | 5,2  | 5,2  | 5,24 | 5,19 | 5,79 | 5,13 | 5,15 |

Data Evaluasi Uji pH Suhu Ruang Replikasi 2

| Formula | Hari ke - |      |      |      |      |      |      |      |
|---------|-----------|------|------|------|------|------|------|------|
|         | 0         | 1    | 3    | 5    | 7    | 14   | 21   | 28   |
| F0      | 6,23      | 6,34 | 6,44 | 5,99 | 6,08 | 6,44 | 6,04 | 5,92 |
|         | 6,36      | 6,39 | 6,45 | 5,98 | 5,95 | 6,57 | 5,98 | 6,06 |
|         | 6,42      | 6,42 | 6,56 | 5,96 | 5,89 | 6,57 | 5,95 | 6,16 |
| F1      | 4,82      | 4,81 | 4,82 | 4,91 | 4,88 | 5,55 | 4,85 | 4,86 |
|         | 4,84      | 4,81 | 4,83 | 4,9  | 4,88 | 5,55 | 4,8  | 4,9  |
|         | 4,78      | 4,8  | 4,8  | 4,89 | 4,89 | 5,52 | 4,81 | 4,89 |
| F2      | 6,02      | 5,95 | 5,98 | 6,04 | 6,05 | 6,43 | 5,9  | 6,04 |
|         | 5,84      | 5,98 | 6    | 6,06 | 6,09 | 6,43 | 5,93 | 5,99 |
|         | 5,96      | 5,9  | 6,02 | 6,06 | 6,11 | 6,43 | 5,91 | 6,04 |
| F3      | 5,16      | 5,08 | 5,15 | 5,26 | 5,25 | 5,77 | 5,16 | 5,19 |
|         | 5,15      | 5,13 | 5,14 | 5,24 | 5,24 | 5,74 | 5,16 | 5,21 |
|         | 5,07      | 5,07 | 5,14 | 5,25 | 5,24 | 5,73 | 5,1  | 5,23 |
| F4      | 5,26      | 5,01 | 5    | 5,1  | 5,1  | 5,62 | 4,99 | 5,03 |
|         | 5,06      | 4,99 | 4,99 | 5,07 | 5,08 | 5,64 | 4,97 | 5,06 |
|         | 5,12      | 4,96 | 4,98 | 5,11 | 5,11 | 5,62 | 5    | 5,1  |

|           |      |      |      |      |      |      |      |      |
|-----------|------|------|------|------|------|------|------|------|
| <b>F5</b> | 5,26 | 5,23 | 5,27 | 5,24 | 5,22 | 5,74 | 5,06 | 5,18 |
|           | 5,23 | 5,2  | 5,19 | 5,18 | 5,22 | 5,69 | 5,09 | 5,11 |
|           | 5,23 | 5,26 | 5,19 | 5,25 | 5,24 | 5,74 | 5,12 | 5,19 |

#### Data Evaluasi Uji pH Suhu Ruang Replikasi 3

| <b>Formula</b> | <b>Hari ke -</b> |          |          |          |          |           |           |           |
|----------------|------------------|----------|----------|----------|----------|-----------|-----------|-----------|
|                | <b>0</b>         | <b>1</b> | <b>3</b> | <b>5</b> | <b>7</b> | <b>14</b> | <b>21</b> | <b>28</b> |
| <b>F0</b>      | 6,44             | 6,38     | 5,76     | 6,04     | 5,9      | 6,58      | 6,04      | 5,86      |
|                | 6,56             | 5,97     | 5,69     | 5,99     | 5,9      | 6,56      | 5,93      | 5,96      |
|                | 6,62             | 6        | 5,96     | 5,94     | 5,89     | 6,6       | 6,01      | 6,04      |
| <b>F1</b>      | 4,81             | 4,85     | 4,86     | 4,91     | 4,85     | 5,53      | 4,87      | 4,91      |
|                | 4,83             | 4,85     | 4,87     | 4,91     | 4,93     | 5,53      | 4,84      | 4,94      |
|                | 4,85             | 4,85     | 5,22     | 4,88     | 4,86     | 5,54      | 4,84      | 4,94      |
| <b>F2</b>      | 5,96             | 6,01     | 6,02     | 6,13     | 6,12     | 6,48      | 5,95      | 6,09      |
|                | 5,88             | 5,93     | 6,04     | 6,13     | 6,12     | 6,51      | 5,95      | 6,12      |
|                | 5,95             | 6,02     | 6,05     | 6,15     | 6,14     | 6,46      | 5,99      | 6,15      |
| <b>F3</b>      | 5,09             | 5,01     | 5,05     | 5,16     | 5,14     | 5,67      | 5,13      | 5,1       |
|                | 5,06             | 4,99     | 5,01     | 5,15     | 5,13     | 5,67      | 5,06      | 5,12      |
|                | 5,03             | 4,98     | 5,06     | 5,14     | 5,11     | 5,65      | 5,03      | 5,14      |
| <b>F4</b>      | 4,95             | 4,92     | 4,94     | 5,01     | 4,9      | 5,52      | 4,87      | 4,9       |
|                | 4,91             | 4,92     | 4,86     | 4,98     | 4,95     | 5,52      | 4,86      | 4,92      |
|                | 4,91             | 4,88     | 4,9      | 4,95     | 4,93     | 5,52      | 4,87      | 4,93      |
| <b>F5</b>      | 5,28             | 5,21     | 5,18     | 5,21     | 5,22     | 5,68      | 5,02      | 5,17      |
|                | 5,22             | 5,18     | 5,19     | 5,22     | 5,22     | 5,69      | 5,05      | 5,13      |
|                | 5,21             | 5,19     | 5,22     | 5,2      | 5,23     | 5,72      | 5,02      | 5,2       |

#### Rata-Rata Uji pH Suhu Ruang Replikasi 1, 2 dan 3

| <b>Formula</b> | <b>Hari ke -</b> |           |           |           |           |           |           |           |
|----------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                | <b>0</b>         | <b>1</b>  | <b>3</b>  | <b>5</b>  | <b>7</b>  | <b>14</b> | <b>21</b> | <b>28</b> |
| <b>F0</b>      | 6,24±0,37        | 6,01±0,43 | 5,92±0,51 | 5,82±0,29 | 5,68±0,44 | 6,32±0,40 | 5,72±0,47 | 5,72±0,49 |
| <b>F1</b>      | 4,83±0,02        | 4,82±0,03 | 4,87±0,09 | 4,88±0,03 | 4,87±0,02 | 5,53±0,01 | 4,84±0,02 | 4,88±0,05 |
| <b>F2</b>      | 5,99±0,10        | 6,01±0,09 | 6,06±0,08 | 6,09±0,05 | 6,12±0,04 | 6,47±0,03 | 5,99±0,10 | 6,14±0,13 |
| <b>F3</b>      | 5,11±0,04        | 5,08±0,08 | 5,11±0,06 | 5,24±0,08 | 5,22±0,08 | 5,74±0,08 | 5,15±0,09 | 5,20±0,08 |
| <b>F4</b>      | 5,05±0,12        | 4,98±0,07 | 4,97±0,07 | 5,08±0,09 | 5,06±0,12 | 5,61±0,09 | 5,00±0,13 | 5,01±0,08 |
| <b>F5</b>      | 5,23±0,01        | 5,21±0,02 | 5,20±0,02 | 5,22±0,01 | 5,23±0,01 | 5,73±0,03 | 5,10±0,07 | 5,18±0,02 |

## Evaluasi Uji pH Suhu Ruang

### Test of Homogeneity of Variances

Uji pH

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 1.533            | 5   | 54  | .195 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji pH suhu ruang memiliki nilai signifikansi yaitu 0,195 dimana **homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji pH

|                | Sum of Squares | df | Mean Square | F      | Sig. |
|----------------|----------------|----|-------------|--------|------|
| Between Groups | 12.043         | 5  | 2.409       | 53.588 | .000 |
| Within Groups  | 2.427          | 54 | .045        |        |      |
| Total          | 14.470         | 59 |             |        |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji pH suhu ruang memiliki nilai signifikansi yaitu 0,000 dimana **ada perbedaan** yang signifikan karena nilainya  $<0,05$ .

Lampiran 17 Data Evaluasi Uji Bobot Jenis Suhu Ruang Replikasi 1

| Formula | Hari ke - |       |       |       |       |       |       |       |
|---------|-----------|-------|-------|-------|-------|-------|-------|-------|
|         | 0         | 1     | 3     | 5     | 7     | 14    | 21    | 28    |
| F0      | 0,989     | 0,992 | 0,983 | 0,986 | 0,992 | 0,989 | 0,988 | 0,994 |
|         | 0,986     | 0,982 | 0,986 | 0,99  | 0,982 | 0,987 | 0,993 | 0,996 |
|         | 0,991     | 0,986 | 0,988 | 0,994 | 0,993 | 0,992 | 0,991 | 0,987 |
| F1      | 0,998     | 0,996 | 0,998 | 0,995 | 0,996 | 0,991 | 0,987 | 0,996 |
|         | 0,997     | 0,997 | 0,995 | 0,99  | 1,001 | 0,989 | 0,99  | 0,999 |
|         | 0,995     | 0,993 | 0,997 | 0,992 | 0,998 | 0,994 | 0,989 | 0,996 |
| F2      | 0,997     | 0,992 | 1,001 | 0,997 | 0,99  | 1,002 | 0,997 | 0,997 |
|         | 0,993     | 0,994 | 0,998 | 0,993 | 0,995 | 0,999 | 0,994 | 0,989 |
|         | 0,99      | 0,988 | 0,999 | 1     | 0,993 | 0,993 | 0,993 | 0,992 |
| F3      | 0,994     | 0,993 | 0,989 | 0,984 | 0,993 | 0,988 | 0,996 | 0,992 |
|         | 0,992     | 0,996 | 0,989 | 0,988 | 0,992 | 0,991 | 0,998 | 0,992 |
|         | 0,995     | 0,992 | 0,987 | 0,989 | 0,996 | 0,992 | 0,994 | 0,99  |
| F4      | 0,987     | 0,992 | 0,988 | 0,996 | 0,997 | 0,983 | 0,985 | 0,988 |
|         | 0,985     | 0,993 | 0,993 | 0,984 | 0,994 | 0,985 | 0,991 | 0,988 |
|         | 0,987     | 0,986 | 0,994 | 0,989 | 0,992 | 0,986 | 0,986 | 0,99  |
| F5      | 0,988     | 0,993 | 0,993 | 0,989 | 0,992 | 0,988 | 0,991 | 0,993 |
|         | 0,994     | 0,989 | 0,99  | 0,994 | 0,995 | 0,986 | 0,996 | 0,992 |
|         | 0,986     | 0,992 | 0,991 | 0,99  | 0,993 | 0,989 | 0,994 | 0,989 |

Data Evaluasi Uji Bobot Jenis Suhu Ruang Replikasi 2

| Formula | Hari ke - |       |       |       |       |       |       |       |
|---------|-----------|-------|-------|-------|-------|-------|-------|-------|
|         | 0         | 1     | 3     | 5     | 7     | 14    | 21    | 28    |
| F0      | 0,992     | 0,99  | 0,989 | 0,992 | 0,997 | 0,993 | 0,989 | 0,988 |
|         | 0,996     | 0,984 | 0,992 | 0,989 | 0,994 | 0,991 | 0,997 | 0,986 |
|         | 1         | 0,992 | 0,985 | 0,99  | 0,99  | 0,995 | 0,995 | 0,989 |
| F1      | 0,994     | 0,992 | 0,988 | 0,991 | 0,989 | 0,986 | 0,991 | 0,987 |
|         | 0,991     | 0,989 | 0,994 | 0,995 | 0,993 | 0,988 | 0,995 | 0,984 |
|         | 0,995     | 0,993 | 0,99  | 0,995 | 0,99  | 0,985 | 0,994 | 0,985 |
| F2      | 0,993     | 0,998 | 0,992 | 0,999 | 0,993 | 0,99  | 0,991 | 0,99  |
|         | 0,989     | 0,996 | 0,997 | 0,994 | 0,999 | 0,993 | 0,993 | 0,993 |
|         | 0,991     | 1     | 0,991 | 0,994 | 0,994 | 0,993 | 0,996 | 0,994 |
| F3      | 0,993     | 0,99  | 0,996 | 1,001 | 0,994 | 0,988 | 0,989 | 0,99  |
|         | 0,991     | 0,994 | 0,998 | 1     | 0,988 | 0,991 | 0,986 | 0,987 |
|         | 0,993     | 0,999 | 0,995 | 0,994 | 0,993 | 0,992 | 0,988 | 0,988 |
| F4      | 0,997     | 0,987 | 0,991 | 0,987 | 0,996 | 0,989 | 0,995 | 0,999 |
|         | 0,995     | 0,99  | 0,988 | 0,994 | 0,988 | 0,995 | 0,997 | 0,996 |
|         | 0,999     | 0,993 | 0,993 | 0,993 | 0,992 | 0,997 | 1,001 | 0,997 |

|           |       |       |       |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>F5</b> | 0,99  | 0,988 | 0,995 | 0,994 | 0,989 | 0,984 | 1,001 | 0,993 |
|           | 0,995 | 0,993 | 0,995 | 0,996 | 0,995 | 0,987 | 0,998 | 0,992 |
|           | 0,991 | 0,99  | 0,995 | 0,992 | 0,991 | 0,994 | 0,996 | 0,997 |

#### Data Evaluasi Uji Bobot Jenis Suhu Ruang Replikasi 3

| <b>Formula</b> | <b>Hari ke -</b> |          |          |          |          |           |           |           |
|----------------|------------------|----------|----------|----------|----------|-----------|-----------|-----------|
|                | <b>0</b>         | <b>1</b> | <b>3</b> | <b>5</b> | <b>7</b> | <b>14</b> | <b>21</b> | <b>28</b> |
| <b>F0</b>      | 0,999            | 0,997    | 0,988    | 0,994    | 0,99     | 0,996     | 0,991     | 0,997     |
|                | 0,996            | 0,992    | 0,992    | 0,999    | 0,996    | 1         | 0,995     | 0,994     |
|                | 0,992            | 0,989    | 0,988    | 0,987    | 0,993    | 0,994     | 0,984     | 0,991     |
| <b>F1</b>      | 0,999            | 0,995    | 0,993    | 1,001    | 0,985    | 0,988     | 0,992     | 0,98      |
|                | 0,985            | 0,994    | 0,988    | 0,995    | 0,991    | 0,989     | 0,999     | 0,985     |
|                | 0,997            | 0,996    | 0,995    | 0,999    | 1,001    | 0,985     | 0,997     | 0,991     |
| <b>F2</b>      | 0,989            | 0,987    | 1,001    | 0,995    | 0,988    | 0,993     | 0,989     | 0,988     |
|                | 0,985            | 0,987    | 0,989    | 0,994    | 0,989    | 0,993     | 0,984     | 0,922     |
|                | 0,984            | 0,994    | 0,99     | 0,994    | 0,995    | 0,992     | 0,989     | 0,997     |
| <b>F3</b>      | 0,985            | 0,989    | 0,997    | 0,996    | 0,991    | 0,994     | 0,992     | 0,996     |
|                | 0,997            | 0,986    | 0,986    | 0,998    | 0,992    | 0,995     | 0,985     | 0,991     |
|                | 0,986            | 0,993    | 0,992    | 0,987    | 0,989    | 0,99      | 0,993     | 0,988     |
| <b>F4</b>      | 0,997            | 0,985    | 0,989    | 0,988    | 0,989    | 0,99      | 0,988     | 0,995     |
|                | 0,986            | 0,991    | 0,986    | 0,988    | 0,993    | 0,99      | 0,994     | 0,995     |
|                | 0,988            | 0,997    | 0,991    | 0,993    | 0,987    | 0,994     | 0,997     | 0,999     |
| <b>F5</b>      | 0,998            | 0,988    | 0,984    | 0,986    | 0,997    | 0,993     | 1         | 1,004     |
|                | 0,999            | 0,993    | 0,997    | 0,981    | 0,989    | 0,991     | 0,99      | 0,988     |
|                | 0,997            | 0,996    | 0,984    | 0,985    | 0,992    | 0,995     | 1,001     | 0,985     |

#### Rata-Rata Uji Bobot Jenis Suhu Ruang Replikasi 1, 2 dan 3

| <b>Form<br/>ula</b> | <b>Hari ke -</b> |                 |                  |                  |                 |                 |                  |                 |
|---------------------|------------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|-----------------|
|                     | <b>0</b>         | <b>1</b>        | <b>3</b>         | <b>5</b>         | <b>7</b>        | <b>14</b>       | <b>21</b>        | <b>28</b>       |
| <b>F0</b>           | 0,99±0,0<br>041  | 0,99±0,0<br>031 | 0,99±0,00<br>20  | 0,99±0,00<br>18  | 0,99±0,0<br>025 | 0,99±0,0<br>037 | 0,99±0,00<br>20  | 0,99±0,0<br>033 |
| <b>F1</b>           | 0,99±0,0<br>018  | 0,99±0,0<br>022 | 0,99±0,00<br>32  | 0,99±0,00<br>32  | 0,99±0,0<br>040 | 0,99±0,0<br>026 | 0,99±0,00<br>37  | 0,99±0,0<br>067 |
| <b>F2</b>           | 0,99±0,0<br>037  | 0,99±0,0<br>045 | 0,995±0,0<br>035 | 0,996±0,0<br>012 | 0,99±0,0<br>023 | 0,99±0,0<br>033 | 0,99±0,00<br>39  | 0,98±0,0<br>136 |
| <b>F3</b>           | 0,99±0,0<br>022  | 0,99±0,0<br>027 | 0,99±0,00<br>40  | 0,99±0,00<br>57  | 0,99±0,0<br>015 | 0,99±0,0<br>015 | 0,99±0,00<br>43  | 0,99±0,0<br>018 |
| <b>F4</b>           | 0,99±0,0<br>054  | 0,99±0,0<br>005 | 0,99±0,00<br>15  | 0,99±0,00<br>10  | 0,99±0,0<br>023 | 0,99±0,0<br>047 | 0,99±0,00<br>52  | 0,99±0,0<br>047 |
| <b>F5</b>           | 0,99±0,0<br>044  | 0,99±0,0<br>010 | 0,99±0,00<br>33  | 0,99±0,00<br>51  | 0,99±0,0<br>008 | 0,99±0,0<br>029 | 0,996±0,0<br>024 | 0,99±0,0<br>013 |

## Evaluasi Uji Bobot Jenis Suhu Ruang

### Test of Homogeneity of Variances

Uji Bobot Jenis

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 1.411            | 5   | 54  | .235 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji bobot jenis suhu ruang memiliki nilai signifikansi yaitu 0,235 dimana **homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji Bobot Jenis

|                | Sum of Squares | df | Mean Square | F    | Sig. |
|----------------|----------------|----|-------------|------|------|
| Between Groups | .000           | 5  | .000        | .278 | .923 |
| Within Groups  | .000           | 54 | .000        |      |      |
| Total          | .000           | 59 |             |      |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji bobot jenis suhu ruang memiliki nilai signifikansi yaitu 0,923 dimana **tidak ada perbedaan** yang signifikan karena nilai yang seharusnya yaitu  $<0,05$ .

Lampiran 18 Data Evaluasi Uji Viskositas Suhu Ruang Replikasi 1

| Formula | Hari ke - |        |        |        |        |        |        |        |
|---------|-----------|--------|--------|--------|--------|--------|--------|--------|
|         | 0         | 1      | 3      | 5      | 7      | 14     | 21     | 28     |
| F0      | 1,523     | 1,2864 | 1,4341 | 1,2787 | 1,3668 | 1,523  | 1,5215 | 1,4502 |
|         | 1,4385    | 1,5122 | 1,3586 | 1,5246 | 1,2735 | 1,52   | 1,2877 | 1,3724 |
|         | 1,3655    | 1,4385 | 1,5215 | 1,5307 | 1,4487 | 1,4472 | 1,3655 | 1,52   |
| F1      | 1,2133    | 1,0494 | 1,1324 | 1,129  | 1,2109 | 1,1245 | 0,96   | 1,0494 |
|         | 1,1313    | 0,9697 | 1,2097 | 1,0431 | 0,9736 | 1,8236 | 1,0431 | 0,9716 |
|         | 0,9677    | 1,1268 | 1,0505 | 1,206  | 1,1324 | 1,0473 | 1,2024 | 1,2109 |
| F2      | 1,0505    | 0,9648 | 1,1358 | 0,9697 | 0,9629 | 0,9745 | 0,8889 | 1,0505 |
|         | 0,8853    | 1,1279 | 0,8898 | 1,0463 | 0,8871 | 1,0526 | 1,0473 | 0,8817 |
|         | 1,1234    | 1,041  | 1,0526 | 0,9726 | 1,0463 | 0,9658 | 0,9658 | 0,9648 |
| F3      | 1,0473    | 1,1268 | 0,9619 | 1,1963 | 1,2072 | 1,1324 | 0,9687 | 1,0452 |
|         | 0,9648    | 1,0494 | 0,8817 | 0,9609 | 1,0452 | 0,9638 | 1,0515 | 1,1256 |
|         | 1,129     | 0,9648 | 1,2    | 1,1222 | 0,9687 | 1,206  | 1,2085 | 0,9629 |
| F4      | 1,28      | 1,4472 | 1,4414 | 1,2109 | 1,2121 | 1,2748 | 1,437  | 1,2812 |
|         | 1,5169    | 1,2072 | 1,2877 | 1,4356 | 1,289  | 1,3572 | 1,2048 | 1,4414 |
|         | 1,44      | 1,2787 | 1,3696 | 1,3627 | 1,5277 | 1,4385 | 1,2787 | 1,3641 |
| F5      | 0,9609    | 1,1268 | 1,2072 | 1,1222 | 1,0452 | 0,9609 | 1,1245 | 0,9658 |
|         | 1,1279    | 0,9619 | 1,0431 | 1,2085 | 0,9677 | 1,1188 | 0,9687 | 1,1256 |
|         | 1,0389    | 1,206  | 1,2048 | 1,0431 | 1,2072 | 1,1222 | 1,2085 | 1,0421 |

Data Evaluasi Uji Viskositas Suhu Ruang Replikasi 2

| Formula | Hari ke - |        |        |        |        |        |        |        |
|---------|-----------|--------|--------|--------|--------|--------|--------|--------|
|         | 0         | 1      | 3      | 5      | 7      | 14     | 21     | 28     |
| F0      | 1,3668    | 1,4443 | 1,523  | 1,3668 | 1,4545 | 1,2072 | 1,3627 | 1,2812 |
|         | 1,4531    | 1,5153 | 1,4472 | 1,3627 | 1,2085 | 1,3655 | 1,4545 | 1,4385 |
|         | 1,2158    | 1,3668 | 1,1975 | 1,4443 | 1,4443 | 1,4516 | 1,2097 | 1,3627 |
| F1      | 1,1279    | 1,206  | 1,041  | 1,1245 | 1,4472 | 1,2787 | 1,1245 | 1,04   |
|         | 1,0442    | 1,0421 | 1,289  | 1,2097 | 1,1268 | 1,1211 | 1,129  | 1,1963 |
|         | 1,129     | 1,1268 | 1,1234 | 1,0484 | 1,2838 | 1,1975 | 1,0473 | 1,1177 |
| F2      | 0,8853    | 1,0515 | 1,206  | 1,1336 | 1,2072 | 1,0431 | 1,1245 | 1,0431 |
|         | 1,0421    | 1,1302 | 1,0505 | 0,9668 | 1,0526 | 1,1268 | 0,9658 | 0,8853 |
|         | 0,9638    | 1,0536 | 1,1245 | 1,0473 | 0,8862 | 1,0463 | 1,0494 | 0,9668 |
| F3      | 0,9658    | 0,9629 | 1,0494 | 1,1358 | 0,9668 | 1,041  | 0,9619 | 1,0431 |
|         | 0,8835    | 1,0473 | 0,8898 | 1,0536 | 1,041  | 0,8835 | 1,0389 | 1,04   |
|         | 0,8853    | 0,9716 | 1,0484 | 1,0473 | 1,0463 | 0,9648 | 0,8808 | 1,1211 |
| F4      | 1,2929    | 1,36   | 1,3655 | 1,36   | 1,2109 | 1,3627 | 1,4516 | 1,2145 |
|         | 1,2097    | 1,2838 | 1,2012 | 1,3696 | 1,3613 | 1,2903 | 1,2929 | 1,3724 |
|         | 1,3765    | 1,3682 | 1,2877 | 1,2877 | 1,2864 | 1,3737 | 1,3792 | 1,3737 |

|           |        |        |        |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>F5</b> | 0,8826 | 1,041  | 1,0484 | 1,0473 | 0,9619 | 0,957  | 1,0547 | 1,0463 |
|           | 1,0484 | 1,1268 | 0,9677 | 1,1302 | 1,0484 | 0,96   | 1,1324 | 1,206  |
|           | 0,9638 | 1,1234 | 1,0484 | 0,9648 | 0,8835 | 1,0473 | 1,0494 | 1,1313 |

#### Data Evaluasi Uji Viskositas Suhu Ruang Replikasi 3

| <b>Formula</b> | <b>Hari ke -</b> |          |          |          |          |           |           |           |
|----------------|------------------|----------|----------|----------|----------|-----------|-----------|-----------|
|                | <b>0</b>         | <b>1</b> | <b>3</b> | <b>5</b> | <b>7</b> | <b>14</b> | <b>21</b> | <b>28</b> |
| <b>F0</b>      | 1,2955           | 1,3737   | 1,2012   | 1,5437   | 1,2036   | 1,3724    | 1,2048    | 1,2929    |
|                | 1,2109           | 1,2864   | 1,3668   | 1,3765   | 1,2916   | 1,2968    | 1,2903    | 1,1279    |
|                | 1,3668           | 1,4429   | 1,2812   | 1,44     | 1,3682   | 1,4502    | 1,3558    | 1,2048    |
| <b>F1</b>      | 1,2955           | 1,129    | 1,0463   | 1,217    | 1,2774   | 1,1324    | 1,206     | 1,112     |
|                | 1,1177           | 1,2085   | 1,1211   | 1,129    | 1,0442   | 1,2825    | 1,1336    | 1,2774    |
|                | 1,2121           | 1,2916   | 1,1203   | 1,1336   | 1,1358   | 1,1975    | 1,0505    | 1,1245    |
| <b>F2</b>      | 1,1222           | 1,04     | 0,9736   | 0,8871   | 1,1211   | 1,0463    | 1,0421    | 0,9609    |
|                | 0,958            | 1,12     | 1,1222   | 1,0473   | 1,0421   | 1,1268    | 1,0368    | 1,0452    |
|                | 1,0368           | 1,0473   | 1,0431   | 0,9668   | 1,0484   | 1,0452    | 1,1222    | 1,1313    |
| <b>F3</b>      | 0,958            | 0,8817   | 1,1313   | 1,0494   | 0,8835   | 0,9668    | 1,0452    | 1,0494    |
|                | 1,1313           | 0,959    | 1,8791   | 0,9706   | 1,1256   | 0,8871    | 1,1177    | 1,1245    |
|                | 0,8791           | 0,8853   | 1,0452   | 0,88     | 1,0421   | 1,0431    | 0,8853    | 0,9609    |
| <b>F4</b>      | 1,2929           | 1,3572   | 1,4429   | 1,3613   | 1,456    | 1,3641    | 1,3613    | 1,2903    |
|                | 1,3586           | 1,4458   | 1,3586   | 1,2812   | 1,3682   | 1,4443    | 1,289     | 1,4516    |
|                | 1,4414           | 1,3737   | 1,2851   | 1,3682   | 1,28     | 1,289     | 1,3737    | 1,3765    |
| <b>F5</b>      | 1,0515           | 1,1211   | 1,0368   | 1,1188   | 1,0505   | 0,9658    | 1,0536    | 1,1392    |
|                | 0,9716           | 1,0463   | 1,1313   | 1,0336   | 1,1222   | 1,1245    | 1,0431    | 1,041     |
|                | 1,0505           | 0,9687   | 1,1165   | 1,0378   | 1,0452   | 1,0484    | 0,9736    | 1,1975    |

#### Rata-Rata Uji Viskositas Suhu Ruang Replikasi 1, 2 dan 3

| <b>Formula</b> | <b>Hari ke -</b> |           |           |           |           |           |           |           |
|----------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                | <b>0</b>         | <b>1</b>  | <b>3</b>  | <b>5</b>  | <b>7</b>  | <b>14</b> | <b>21</b> | <b>28</b> |
| <b>F0</b>      | 1,36±0,08        | 1,41±0,04 | 1,37±0,08 | 1,43±0,03 | 1,34±0,05 | 1,40±0,08 | 1,34±0,05 | 1,34±0,12 |
| <b>F1</b>      | 1,14±0,06        | 1,13±0,08 | 1,13±0,03 | 1,14±0,02 | 1,18±0,09 | 1,25±0,08 | 1,10±0,03 | 1,12±0,05 |
| <b>F2</b>      | 1,01±0,04        | 1,06±0,02 | 1,07±0,05 | 1,00±0,04 | 1,03±0,06 | 1,05±0,04 | 1,03±0,05 | 0,99±0,05 |
| <b>F3</b>      | 0,98±0,07        | 0,98±0,07 | 1,12±0,20 | 1,05±0,07 | 1,04±0,03 | 1,01±0,08 | 1,02±0,06 | 1,05±0,01 |
| <b>F4</b>      | 1,36±0,06        | 1,35±0,04 | 1,34±0,05 | 1,34±0,00 | 1,33±0,04 | 1,35±0,01 | 1,34±0,03 | 1,35±0,03 |
| <b>F5</b>      | 1,01±0,04        | 1,08±0,03 | 1,09±0,07 | 1,08±0,04 | 1,04±0,06 | 1,03±0,04 | 1,07±0,04 | 1,10±0,05 |

## Evaluasi Uji Viskositas Suhu Ruang

### Test of Homogeneity of Variances

Uji Viskositas

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 1.204            | 5   | 54  | .320 |

**Kesimpulan:** Uji Homogenitas data evaluasi uji viskositas suhu ruang memiliki nilai signifikansi yaitu 0,320 dimana **homogen** karena nilainya  $>0,05$ .

### ANOVA

Uji Viskositas

|                | Sum of Squares | df | Mean Square | F       | Sig. |
|----------------|----------------|----|-------------|---------|------|
| Between Groups | 1.285          | 5  | .257        | 131.047 | .000 |
| Within Groups  | .106           | 54 | .002        |         |      |
| Total          | 1.390          | 59 |             |         |      |

**Kesimpulan:** Uji One-way ANOVA data evaluasi uji viskositas suhu ruang memiliki nilai signifikansi yaitu 0,000 dimana **ada perbedaan** yang signifikan karena  $<0,05$ .

## Lampiran 19 Hasil Cek Turnitin

### 22. Chindyka Oktaviana Khasanah\_191FF03032

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