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Lampiran 1. Hasil Determinasi Tanaman Kulit Buah Manggis (*Garcinia mangostana* L.)



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN

BALAI BESAR PENELITIAN DAN PENGEMBANGAN

TANAMAN OBAT DAN OBAT TRADISIONAL

Jalan Lawu No.11 Tawamangu, Karanganyar, Jawa Tengah 57792

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Laman b2p2toot.litbang.kemkes.go.id Surat Elektronik b2p2toot@litbang.kemkes.go.id

Nomor : KM.04.02/2/1587/2022

03 September 2022

Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi
Jalan Let. Jend. Sutoyo, Solo 57127

Merujuk surat Saudara nomor: 885/H6-04/18.08.2022 tanggal 18 Agustus 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Hikmah Dwi Rahmawati
Nama Sampel : Manggis
Sampel : Tanaman Segar
Spesies : *Garcinia mangostana* L.
Sinonim : *Mangostana garcinia* Gaertn.
Familia : Clusiaceae
Penanggung Jawab : Nina Kurnianingrum, S.Si.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke dan/atau berasal dari B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian
dan Pengembangan Tanaman Obat
dan Obat Tradisional



Akhmad Saikhu, S.K.M.,
M.Sc.PH.

Lampiran 2. Proses pembuatan simplisia kulit buah manggis (*Garcinia mangostana* L.)



1. Perhitungan randemen bobot kering terhadap bobot basah :

$$\text{Randemen} = \frac{\text{Bobot kering}}{\text{Bobot basah}} \times 100\%$$

$$\text{Randemen} = \frac{837 \text{ gram}}{2.085 \text{ gram}} \times 100\% = 40,14\%$$

2. Perhitungan randemen bobot serbuk terhadap bobot kering :

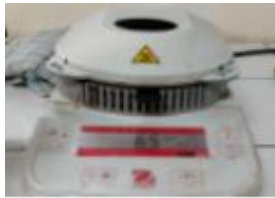
$$\text{Randemen} = \frac{\text{Bobot serbuk}}{\text{Bobot kering}} \times 100\%$$

$$\text{Randemen} = \frac{671 \text{ gram}}{837 \text{ gram}} \times 100\% = 80,16\%$$

**Lampiran 3. Pemeriksaan fisik serbuk kulit buah manggis
(*Garcinia mangostana* L.)**



Lampiran 4. Penetapan susut pengeringan serbuk kulit buah manggis (*Garcinia mangostana* L.) metode *moisture balance*



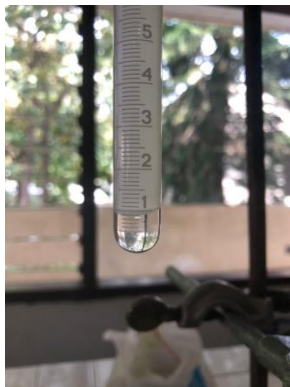
Lampiran 5. Penetapan kadar air serbuk kulit buah manggis (*Garcinia mangostana* L.) metode *sterling bidwel*



Replikasi 1



Replikasi 2



Replikasi 3



Hasil penetapan kadar air serbuk kulit buah manggis (*Sterling bidwel*)

Replikasi	Bobot serbuk (g)	Volume terbaca (ml)	Kadar air serbuk (% v/b)
1.	10,0024	0,9	9,00
2.	10,0032	0,8	8,00
3.	10,0046	1,0	10,00
Rata-rata ± SD			9,00 ± 1,0

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{Volume terbaca}}{\text{Bobot serbuk}} \times 100\% \\
 &= \frac{0,9}{10,0024} \times 100\% \\
 &= 9,00\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{Volume terbaca}}{\text{Bobot serbuk}} \times 100\% \\
 &= \frac{0,8}{10,0032} \times 100\% \\
 &= 8,00\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{Volume terbaca}}{\text{Bobot serbuk}} \times 100\% \\
 &= \frac{1}{10,0046} \times 100\% \\
 &= 1,00\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Rata-rata kadar air serbuk kulit buah manggis} &= \frac{9,00\% + 8,00\% + 1,00\%}{3} \\
 &= 9,00\%
 \end{aligned}$$

Lampiran 6. Perhitungan randemen ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.)



Perhitungan randemen ekstrak kulit buah manggis :

$$\text{Randemen} = \frac{\text{Bobot ekstrak kental}}{\text{Bobot serbuk}} \times 100\%$$

$$\text{Randemen} = \frac{224 \text{ gram}}{671 \text{ gram}} \times 100\% = 33,4\%$$

Lampiran 7. Penetapan kadar air ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.) metode gravimetri



➤ Replikasi 1

- Bobot kurs kosong = 42,268 g
- Bobot kurs + ekstrak = 52,319 g
- Bobot ekstrak = 52,319 g – 42,268 g
= 10,051 g
- Bobot kurs kosong + ekstrak setelah pemanasan = 43,224 g
- Bobot ekstrak setelah pemanasan = 43,224 g - 42,268 g
= 0,956 g
- Kadar lembab ekstrak
$$= \frac{\text{Bobot konstan}}{\text{Bobot awal}} \times 100\%$$

$$= \frac{0,956 \text{ gram}}{10,051 \text{ gram}} \times 100\%$$

= 9,51 %

➤ Replikasi 2

- Bobot kurs kosong = 39,742 g
- Bobot kurs + ekstrak = 49,796 g
- Bobot ekstrak = 49,796 g – 39,742 g
= 10,054 g

- Bobot kurs kosong + ekstrak setelah pemanasan = 40,676 g
- Bobot ekstrak setelah pemanasan = 40,676 g- 39,742 g
= 0,934 g
- Kadar lembab ekstrak
$$= \frac{\text{Bobot konstan}}{\text{Bobot awal}} \times 100\%$$
$$= \frac{0,934 \text{ gram}}{10,054 \text{ gram}} \times 100\%$$
$$= 9,29 \%$$

➤ Replikasi 3

- Bobot kurs kosong = 43,045 g
- Bobot kurs + ekstrak = 53,562 g
- Bobot ekstrak = 53,562 g- 43,045 g
= 10,517 g
- Bobot kurs kosong + ekstrak setelah pemanasan = 43,994 g
- Bobot ekstrak setelah pemanasan = 43,994 g- 43,045 g
= 0,949 g
- Kadar lembab ekstrak
$$= \frac{\text{Bobot konstan}}{\text{Bobot awal}} \times 100\%$$
$$= \frac{0,949 \text{ gram}}{10,517 \text{ gram}} \times 100\%$$
$$= 9,02 \%$$

Kesimpulan =

Rata-rata kadar lembab ekstrak etanol kulit buah manggis

$$= 9,51 \% + 9,29 \% + 9,02 \% / 3$$

$$= 9,27 \pm 0,24$$

Lampiran 8. Identifikasi kandungan senyawa ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.) dengan metode tabung



Saponin



Flavonoid



**Alkaloid (Reagen
Dragendroff)**



**Alkaloid (Reagen
Mayer)**



Tanin



Triterpenoid



Uji bebas etanol

Lampiran 9. Pemeriksaan organoleptis sediaan gel ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.)



Lampiran 10. Pengujian mutu fisik dan stabilitas sediaan gel ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.)



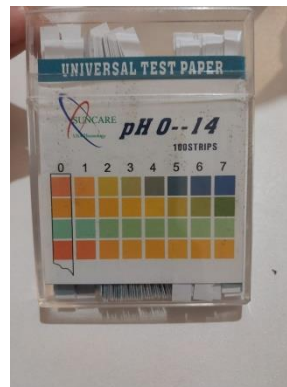
Homogenitas



Oven



Viskometer



pH stik



Daya sebar



Lemari pendingin

Lampiran 11. Hasil uji nilai SPF sediaan gel ekstrak etanol kulit buah manggis (*Garcinia mangostana* L.)

Kontrol Positif (Azarine Hydrasoothe Sunscreen Gel SPF 45)

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$	SPF
290	0,0150	0,4977	0,0074655		0,6691187	45
295	0,0817	0,5204	0,04251668			
300	0,2874	0,5901	0,16959474			
305	0,3278	0,6927	0,22706706			
310	0,1864	0,7917	0,14757288			
315	0,0839	0,7536	0,06322704			
320	0,0180	0,6486	0,0116748			
			0,6691187			

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$45 = CF \times 0,6691187$$

$$CF = 67,25264$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$	SPF
290	0,0150	0,4987	0,0074805		0,6696445	45
295	0,0817	0,5201	0,04249217			
300	0,2874	0,5905	0,1697097			
305	0,3278	0,6922	0,22690316			
310	0,1864	0,7899	0,14723736			
315	0,0839	0,7539	0,06325221			
320	0,0180	0,6983	0,0125694			
			0,6696445			

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$45 = CF \times 0,6696445$$

$$CF = 67,19984$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$	SPF
290	0,0150	0,4980	0,00747		0,66908369	45
295	0,0817	0,5201	0,04249217			
300	0,2874	0,5906	0,16973844			
305	0,3278	0,6925	0,2270015			
310	0,1864	0,7913	0,14749832			
315	0,0839	0,7534	0,06321026			
320	0,0180	0,6485	0,011673			
			0,66908369			

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$30 = CF \times 0,6690837$$

$$CF = 67,25616$$

$$\text{Rata-rata CF} = 67,236$$

Nilai SPF ekstrak etanol kulit buah manggis 0,1%**Replikasi 1**

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7598	0,011397	67,2362	0,82086922
295	0,0817	0,8010	0,0654417		
300	0,2874	0,8239	0,23678886		
305	0,3278	0,8369	0,27433582		
310	0,1864	0,8375	0,15611		
315	0,0839	0,7736	0,06490504		
320	0,0180	0,6606	0,0118908		
			0,82086922		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,82086922$$

$$\text{SPF} = 55,1921$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7608	0,011412	67,2362	0,82395516
295	0,0817	0,8037	0,06566229		
300	0,2874	0,8265	0,2375361		
305	0,3278	0,8402	0,27541756		
310	0,1864	0,8416	0,15687424		
315	0,0839	0,7763	0,06513157		
320	0,0180	0,6623	0,0119214		
			0,82395516		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,82395516$$

$$\text{SPF} = 55,3996$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7622	0,011433	67,2362	0,82535674
295	0,0817	0,8055	0,06580935		
300	0,2874	0,8288	0,23819712		
305	0,3278	0,8418	0,27594204		
310	0,1864	0,8418	0,15691152		
315	0,0839	0,7769	0,06518191		
320	0,0180	0,6601	0,0118818		
			0,82535674		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,82535674$$

$$\text{SPF} = 55,4939$$

$$\text{Rata-rata SPF} = 55,362$$

Kontrol Negatif sediaan Carbopol 0,5%

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0160	0,000177	67,2362	0,01405321
295	0,0817	0,0156	0,00102125		
300	0,2874	0,0145	0,00396612		
305	0,3278	0,0140	0,0045892		
310	0,1864	0,0138	0,0027028		
315	0,0839	0,0125	0,00130884		
320	0,0180	0,0118	0,000288		
			0,01405321		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01405321$$

$$\text{SPF} = 0,9449$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0163	0,00018	67,2362	0,01440164
295	0,0817	0,0162	0,00104576		
300	0,2874	0,0150	0,00390864		
305	0,3278	0,0147	0,00481866		
310	0,1864	0,0136	0,002796		
315	0,0839	0,0128	0,00135918		
320	0,0180	0,0120	0,0002934		
			0,01440164		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01440164$$

$$\text{SPF} = 0,9683$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0164	0,000183	67,2362	0,014429412
295	0,0817	0,0163	0,00105393		
300	0,2874	0,0158	0,00385116		
305	0,3278	0,0144	0,004733432		
310	0,1864	0,0134	0,00294512		
315	0,0839	0,0122	0,00136757		
320	0,0180	0,0129	0,0002952		
			0,014429412		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,014429412$$

$$\text{SPF} = 0,9702$$

$$\text{Rata-rata SPF} = 0,961$$

Kontrol Negatif sediaan Carbopol 1%

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0238	0,0002625	67,2362	0,02030459
295	0,0817	0,0229	0,00153596		
300	0,2874	0,0210	0,00548934		
305	0,3278	0,0206	0,00675268		
310	0,1864	0,0191	0,0039144		
315	0,0839	0,0188	0,00192131		
320	0,0180	0,0175	0,0004284		
			0,02030459		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,02030459$$

$$SPF = 1,3652$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0245	0,0003225	67,2362	0,01962637
295	0,0817	0,0238	0,00164217		
300	0,2874	0,0215	0,00537438		
305	0,3278	0,0201	0,00632654		
310	0,1864	0,0187	0,00352296		
315	0,0839	0,0193	0,00199682		
320	0,0180	0,0189	0,000441		
			0,01962637		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,01962637$$

$$SPF = 1,3196$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,0229	0,0003435	67,2362	0,02043506
295	0,0817	0,0243	0,00198531		
300	0,2874	0,0209	0,00600666		
305	0,3278	0,0202	0,00662156		
310	0,1864	0,0195	0,0036348		
315	0,0839	0,0177	0,00148503		
320	0,0180	0,0199	0,0003582		
			0,02043506		

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$SPF = 67,2362 \times 0,02043506$$

$$SPF = 1,3740$$

$$\text{Rata-rata SPF} = 1,353$$

Kontrol Negatif sediaan Carbopol 1,5%

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,0387	0,0005805	67,2362	0,03225643
295	0,0817	0,0375	0,00306375		
300	0,2874	0,0351	0,01008774		
305	0,3278	0,0311	0,01019458		
310	0,1864	0,0286	0,00533104		
315	0,0839	0,0298	0,00250022		
320	0,0180	0,0277	0,0004986		
			0,03225643		

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$SPF = 67,2362 \times 0,03225643$$

$$SPF = 2,1688$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0381	0,0005715	67,2362	0,03192662
295	0,0817	0,0369	0,00301473		
300	0,2874	0,0352	0,01011648		
305	0,3278	0,0309	0,01012902		
310	0,1864	0,0276	0,00514464		
315	0,0839	0,0295	0,00247505		
320	0,0180	0,0264	0,0004752		
			0,03192662		

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$SPF = 67,2362 \times 0,03192662$$

$$SPF = 2,1466$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0389	0,0005835	67,2362	0,031465453
295	0,0817	0,0368	0,003005743		
300	0,2874	0,0355	0,0102027		
305	0,3278	0,0302	0,00989956		
310	0,1864	0,0261	0,00486504		
315	0,0839	0,0289	0,00242471		
320	0,0180	0,0269	0,0004842		
			0,031465453		

$$SPF = CF \times \{\sum EE(\lambda) \times I(\lambda) \times abs(\lambda)\}$$

$$SPF = 67,2362 \times 0,031465453$$

$$SPF = 2,1156$$

$$\text{Rata-rata} = 2,144$$

Kontrol Negatif sediaan Carbopol 0,5% sesudah stabilitas cycling test

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0151	0,0002265	67,2362	0,01300445
295	0,0817	0,0148	0,00120916		
300	0,2874	0,0136	0,00390864		
305	0,3278	0,0129	0,00422862		
310	0,1864	0,0122	0,00227408		
315	0,0839	0,0115	0,00096485		
320	0,0180	0,0107	0,0001926		
			0,01300445		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01300445$$

$$\text{SPF} = 0,8744$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0155	0,0002325	67,2362	0,01313379
295	0,0817	0,0147	0,00120099		
300	0,2874	0,0139	0,00399486		
305	0,3278	0,0130	0,0042614		
310	0,1864	0,0121	0,00225544		
315	0,0839	0,0120	0,0010068		
320	0,0180	0,0101	0,0001818		
			0,01313379		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01313379$$

$$\text{SPF} = 0,8831$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0157	0,0002355	67,2362	0,01312479
295	0,0817	0,0149	0,00121733		
300	0,2874	0,0133	0,00382242		
305	0,3278	0,0131	0,00429418		
310	0,1864	0,0128	0,00238592		
315	0,0839	0,0116	0,00097324		
320	0,0180	0,0109	0,0001962		
			0,01312479		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01312479$$

$$\text{SPF} = 0,8825$$

$$\text{Rata-rata SPF} = 0,880$$

Kontrol Negatif sediaan Carbopol 1% sesudah stabilitas *cycling****test***

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0224	0,000336	67,2362	0,01927205
295	0,0817	0,0210	0,0017157		
300	0,2874	0,0196	0,00563304		
305	0,3278	0,0192	0,00629376		
310	0,1864	0,0188	0,00350432		
315	0,0839	0,0177	0,00148503		
320	0,0180	0,0169	0,0003042		
			0,01927205		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01927205$$

$$\text{SPF} = 1,2958$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0220	0,00033	67,2362	0,01886465
295	0,0817	0,0209	0,00170753		
300	0,2874	0,0195	0,0056043		
305	0,3278	0,0187	0,00612986		
310	0,1864	0,0181	0,00337384		
315	0,0839	0,0168	0,00140952		
320	0,0180	0,0172	0,0003096		
			0,01886465		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01886465$$

$$\text{SPF} = 1,2684$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,0227	0,0003405	67,2362	0,01938791
295	0,0817	0,0212	0,00173204		
300	0,2874	0,0199	0,00571926		
305	0,3278	0,0195	0,0063921		
310	0,1864	0,0184	0,00342976		
315	0,0839	0,0175	0,00146825		
320	0,0180	0,0170	0,000306		
			0,01938791		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,01938791$$

$$\text{SPF} = 1,3036$$

$$\text{Rata-rata SPF} = 1,289$$

Kontrol Negatif sediaan Carbopol 1,5% sesudah stabilitas cycling test

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,0378	0,000567	67,2362	0,03191164
295	0,0817	0,0371	0,00303107		
300	0,2874	0,0344	0,00988656		
305	0,3278	0,0306	0,01003068		
310	0,1864	0,0295	0,0054988		
315	0,0839	0,0287	0,00240793		
320	0,0180	0,0272	0,0004896		
			0,03191164		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,03191164$$

$$SPF = 2,1456$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,0374	0,000561	67,2362	0,03078365
295	0,0817	0,0362	0,00295754		
300	0,2874	0,0345	0,0099153		
305	0,3278	0,0293	0,00960454		
310	0,1864	0,0263	0,00490232		
315	0,0839	0,0285	0,00239115		
320	0,0180	0,0251	0,0004518		
			0,03078365		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,03078365$$

$$SPF = 2,0698$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,0379	0,0005685	67,2362	0,03062068
295	0,0817	0,0352	0,00287584		
300	0,2874	0,0348	0,01000152		
305	0,3278	0,0291	0,00953898		
310	0,1864	0,0257	0,00479048		
315	0,0839	0,0284	0,00238276		
320	0,0180	0,0257	0,0004626		
			0,03062068		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,03062068$$

$$SPF = 2,0588$$

Rata-rata SPF = 2,091

Sediaan gel ekstrak 0,1% Carbopol 0,5%

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum EE \times I \times Abs$
290	0,0150	0,7277	0,0109155	67,2362	0,61380695
295	0,0817	0,7185	0,05870145		
300	0,2874	0,6517	0,18729858		
305	0,3278	0,6587	0,21592186		
310	0,1864	0,5176	0,09648064		
315	0,0839	0,4308	0,03614412		
320	0,0180	0,4636	0,0083448		
			0,61380695		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,61380695$$

$$SPF = 41,2700$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7192	0,010788	67,2362	0,60765278
295	0,0817	0,7179	0,05865243		
300	0,2874	0,6432	0,18485568		
305	0,3278	0,6461	0,21179158		
310	0,1864	0,5215	0,0972076		
315	0,0839	0,4311	0,03616929		
320	0,0180	0,4549	0,0081882		
			0,60765278		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,60765278$$

$$\text{SPF} = 40,8563$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7182	0,010773	67,2362	0,61233259
295	0,0817	0,7768	0,06346456		
300	0,2874	0,6448	0,18531552		
305	0,3278	0,6457	0,21166046		
310	0,1864	0,5176	0,09648064		
315	0,0839	0,4299	0,03606861		
320	0,0180	0,4761	0,0085698		
			0,61233259		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,61233259$$

$$\text{SPF} = 41,1709$$

$$\text{Rata-rata SPF} = 41,099$$

Sediaan gel ekstrak 0,1% Carbopol 1%**Replikasi 1**

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7098	0,010647	67,2362	0,59387406
295	0,0817	0,6989	0,05710013		
300	0,2874	0,6118	0,17583132		
305	0,3278	0,5953	0,19513934		
310	0,1864	0,5788	0,10788832		
315	0,0839	0,4565	0,03830035		
320	0,0180	0,4982	0,0089676		
			0,59387406		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,59387406$$

$$SPF = 39,9298$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7085	0,0106275	67,2362	0,59353303
295	0,0817	0,6781	0,05540077		
300	0,2874	0,6293	0,18086082		
305	0,3278	0,5988	0,19628664		
310	0,1864	0,5662	0,10553968		
315	0,0839	0,4318	0,03622802		
320	0,0180	0,4772	0,0085896		
			0,59353303		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,59353303$$

$$SPF = 39,9069$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,7092	0,010638	67,2362	0,59278715
295	0,0817	0,6865	0,05608705		
300	0,2874	0,6177	0,17752698		
305	0,3278	0,5974	0,19582772		
310	0,1864	0,5793	0,10798152		
315	0,0839	0,4312	0,03617768		
320	0,0180	0,4749	0,0085482		
			0,59278715		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,59278715$$

$$\text{SPF} = 39,8568$$

Rata-rata SPF = 39,898

Sediaan gel ekstrak 0,1% Carbopol 1,5%

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6943	0,0104145	67,2362	0,58584101
295	0,0817	0,6522	0,05328474		
300	0,2874	0,6232	0,17910768		
305	0,3278	0,6299	0,20648122		
310	0,1864	0,5018	0,09353552		
315	0,0839	0,4165	0,03494435		
320	0,0180	0,4485	0,008073		
			0,58584101		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,58584101$$

$$\text{SPF} = 39,3897$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6761	0,0101415	67,2362	0,583868032
295	0,0817	0,6628	0,05415076		
300	0,2874	0,6221	0,17879154		
305	0,3278	0,6229	0,20418662		
310	0,1864	0,5020	0,0935728		
315	0,0839	0,4143	0,034761012		
320	0,0180	0,4591	0,0082638		
			0,583868032		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,583868032$$

$$\text{SPF} = 39,2571$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6786	0,010179	67,2362	0,5824841
295	0,0817	0,6473	0,05288441		
300	0,2874	0,6231	0,17907894		
305	0,3278	0,6214	0,20369492		
310	0,1864	0,5022	0,09361008		
315	0,0839	0,4145	0,03477655		
320	0,0180	0,4589	0,0082602		
			0,5824841		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,5824841$$

$$\text{SPF} = 39,1640$$

$$\text{Rata-rata SPF} = 39,270$$

**Sediaan gel ekstrak 0,1% Carbopol 0,5% setelah uji stabilitas
cycling test**

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6490	0,009735	67,2362	0,56253565
295	0,0817	0,6282	0,05132394		
300	0,2874	0,5983	0,17195142		
305	0,3278	0,5871	0,19245138		
310	0,1864	0,4982	0,09286448		
315	0,0839	0,4297	0,03605183		
320	0,0180	0,4532	0,0081576		
			0,56253565		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,56253565$$

$$\text{SPF} = 37,8228$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6472	0,009708	67,2362	0,55991792
295	0,0817	0,6281	0,05131577		
300	0,2874	0,5981	0,17189394		
305	0,3278	0,5789	0,18976342		
310	0,1864	0,4988	0,09297632		
315	0,0839	0,4293	0,03601827		
320	0,0180	0,4579	0,0082422		
			0,55991792		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,55991792$$

$$\text{SPF} = 37,6468$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6582	0,009873	67,2362	0,56133771
295	0,0817	0,6876	0,05617692		
300	0,2874	0,5838	0,16778412		
305	0,3278	0,5847	0,19166466		
310	0,1864	0,4955	0,0923612		
315	0,0839	0,4139	0,03472621		
320	0,0180	0,4862	0,0087516		
			0,56133771		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,56133771$$

$$\text{SPF} = 37,7422$$

$$\text{Rata-rata SPF} = 37,737$$

Sediaan gel ekstrak 0,1% Carbopol 1% setelah uji stabilitas *cycling****test***

Replikasi 1

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6468	0,009702	67,2362	0,53382994
295	0,0817	0,6374	0,05207558		
300	0,2874	0,5691	0,16355934		
305	0,3278	0,5592	0,18330576		
310	0,1864	0,4425	0,082482		
315	0,0839	0,4234	0,03552326		
320	0,0180	0,3990	0,007182		
			0,53382994		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,53382994$$

$$\text{SPF} = 35,8927$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6486	0,009729	67,2362	0,54212148
295	0,0817	0,6394	0,05223898		
300	0,2874	0,5843	0,16792782		
305	0,3278	0,5641	0,18491198		
310	0,1864	0,4527	0,08438328		
315	0,0839	0,4278	0,03589242		
320	0,0180	0,3910	0,007038		
			0,54212148		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,54212148$$

$$\text{SPF} = 36,4502$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6472	0,009708	67,2362	0,53515517
295	0,0817	0,6384	0,05215728		
300	0,2874	0,5743	0,16505382		
305	0,3278	0,5541	0,18163398		
310	0,1864	0,4516	0,08417824		
315	0,0839	0,4235	0,03553165		
320	0,0180	0,3829	0,0068922		
			0,53515517		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,53515517$$

$$\text{SPF} = 35,9818$$

$$\text{Rata-rata SPF} = 36,108$$

Gel ekstrak 0,1% Carbopol 1,5% setelah uji stabilitas cycling test**Replikasi 1**

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6421	0,0096315	67,2362	0,512225649
295	0,0817	0,6290	0,051386849		
300	0,2874	0,5483	0,15758142		
305	0,3278	0,5185	0,1699643		
310	0,1864	0,4387	0,08177368		
315	0,0839	0,4190	0,0351541		
320	0,0180	0,3741	0,0067338		
			0,512225649		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,512225649$$

$$SPF = 34,4401$$

Replikasi 2

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6436	0,009654	67,2362	0,51316623
295	0,0817	0,6398	0,05227166		
300	0,2874	0,5464	0,15703536		
305	0,3278	0,5187	0,17002986		
310	0,1864	0,4421	0,08240744		
315	0,0839	0,4189	0,03514571		
320	0,0180	0,3679	0,0066222		
			0,51316623		

$$SPF = CF \times \{\sum EE (\lambda) \times I (\lambda) \times abs (\lambda)\}$$

$$SPF = 67,2362 \times 0,51316623$$

$$SPF = 34,5033$$

Replikasi 3

λ	EE x I	Abs	EE x I x Abs	CF	$\sum$ EE x I x Abs
290	0,0150	0,6428	0,009642	67,2362	0,51362562
295	0,0817	0,6389	0,05219813		
300	0,2874	0,5471	0,15723654		
305	0,3278	0,5188	0,17006264		
310	0,1864	0,4439	0,08274296		
315	0,0839	0,4185	0,03511215		
320	0,0180	0,3684	0,0066312		
			0,51362562		

$$\text{SPF} = \text{CF} \times \{\sum \text{EE}(\lambda) \times \text{I}(\lambda) \times \text{abs}(\lambda)\}$$

$$\text{SPF} = 67,2362 \times 0,51362562$$

$$\text{SPF} = 34,5342$$

$$\text{Rata-rata SPF} = 34,493$$

Lampiran 12. Analisis data SPSS uji mutu fisik

Uji viskositas

Tests of Normality

	Viskositas_Mutu_Fisik_Hari_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Viskositas_Mutu_Fisik_Hari_1	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000
	3	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Viskositas_Mutu_Fisik_Hari_1	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	335.56	283.33	326.67	396.67
	Std. Deviation	49.777	5.774	5.774	5.774
Most Extreme Differences	Absolute	.211	.385	.385	.385
	Positive	.211	.385	.282	.282
	Negative	-.196	-.282	-.385	-.385
Test Statistic		.211	.385	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Viskositas_Mutu_Fisik_Hari_1
Chi-Square	7.385
df	2
Asymp. Sig.	.025

a. Kruskal Wallis Test

b. Grouping Variable:

Viskositas_Mutu_Fisik_Hari_1

Tests of Normality

	Viskositas_Mutu_Fisik_Basis_Hari_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Viskositas_Mutu_Fisik_Basis_Hari_1	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000
	3	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Viskositas_Mutu_Fisik_Basis_Hari_1	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	355.56	296.67	353.33	416.67
	Std. Deviation	52.228	5.774	5.774	5.774
Most Extreme Differences	Absolute	.190	.385	.385	.385
	Positive	.190	.282	.385	.282
	Negative	-.185	-.385	-.282	-.385
Test Statistic		.190	.385	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.c,e	.c,e	.c,e

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Tests of Normality

	Viskositas_Mutu_Fisik_Hari_21	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Viskositas_Mutu_Fisik_Hari_21	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000
	3	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Viskositas_Mutu_Fisik_Hari_21	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	324.44	273.33	313.33	386.67
	Std. Deviation	50.028	5.774	5.774	5.774
Most Extreme Differences	Absolute	.202	.385	.385	.385
	Positive	.202	.385	.385	.282
	Negative	-.200	-.282	-.282	-.385
Test Statistic		.202	.385	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Viskositas_Mutu_Fisik_Hari_21
Chi-Square	7.385
df	2
Asymp. Sig.	.025

a. Kruskal Wallis Test

b. Grouping Variable:

Viskositas_Mutu_Fisik_Hari_21

Tests of Normality

Viskositas_Mutu_Fisik_Basis_Hari_21		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Viskositas_Mutu_Fisik_Basis_Hari_21	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000
	3	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Viskositas_Mutu_Fisik_Basis_Hari_21	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	345.56	293.33	336.67	406.67
	Std. Deviation	49.777	5.774	5.774	5.774
Most Extreme Differences	Absolute	.211	.385	.385	.385
	Positive	.211	.385	.282	.282
	Negative	-.196	-.282	-.385	-.385
Test Statistic		.211	.385	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Viskositas_Mutu_Fisik_Basis_Hari_21
Chi-Square	7.385
df	2
Asymp. Sig.	.025

a. Kruskal Wallis Test

b. Grouping Variable:
Viskositas_Mutu_Fisik_Basis_Hari_21

Uji pH**Tests of Normality^{a,b}**

Uji_Mutu_pH_Hari_1	Kolmogorov-Smirnov ^c			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_pH_Hari_1	.385	3	.	.750	3	.000

a. Hasil_Uji_Mutu_pH_Hari_1 is constant when Uji_Mutu_pH_Hari_1 = 1. It has been omitted.

b. Hasil_Uji_Mutu_pH_Hari_1 is constant when Uji_Mutu_pH_Hari_1 = 2. It has been omitted.

c. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mut u_pH_Hari_1	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	5.78	6.00	6.00	5.33
	Std. Deviation	.441	.000 ^d	.000 ^d	.577
Most Extreme Differences	Absolute	.471			.385
	Positive	.307			.385
	Negative	-.471			-.282
Test Statistic		.471			.385
Asymp. Sig. (2-tailed)		.000 ^c			. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Uji_Mut u_pH_Hari_1
Chi-Square	4.571
df	2
Asymp. Sig.	.102

a. Kruskal Wallis Test

b. Grouping Variable:

Uji_Mutu_pH_Hari_1

Tests of Normality^{a,b,c}

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- a. Hasil_Uji_Mutu_pH_Basis_Hari_1 is constant when Uji_Mutu_pH_Basis_Hari_1 = 1. It has been omitted.
- b. Hasil_Uji_Mutu_pH_Basis_Hari_1 is constant when Uji_Mutu_pH_Basis_Hari_1 = 2. It has been omitted.
- c. Hasil_Uji_Mutu_pH_Basis_Hari_1 is constant when Uji_Mutu_pH_Basis_Hari_1 = 3. It has been omitted.

Test Statistics^{a,b}

	Hasil_Uji_Mutu_pH_Basis_Hari_1
Chi-Square	.000
df	2
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Uji_Mutu_pH_Basis_Hari_1

Sediaan hari ke-21

Tests of Normality^{a,c}

Uji_Mutu_pH_Hari_21	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_pH_Hari_21	.385	3	.	.750	3	.000

a. Hasil_Uji_Mutu_pH_Hari_21 is constant when Uji_Mutu_pH_Hari_21 = 1. It has been omitted.

b. Lilliefors Significance Correction

c. Hasil_Uji_Mutu_pH_Hari_21 is constant when Uji_Mutu_pH_Hari_21 = 3. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mut u_pH_Hari_2 1	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	5.56	6.00	5.67	5.00
	Std. Deviation	.527	.000 ^d	.577	.000 ^d
Most Extreme Differences	Absolute	.356		.385	
	Positive	.299		.282	
	Negative	-.356		-.385	
Test Statistic		.356		.385	
Asymp. Sig. (2-tailed)		.002 ^c		. ^{c,e}	

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Uji_Mut u_pH_Hari_2 1
Chi-Square	5.600
df	2
Asymp. Sig.	.061

a. Kruskal Wallis Test

b. Grouping Variable:
Uji_Mutu_pH_Hari_21

Kontrol negatif hari ke 21

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mut u_pH_Basis_ Hari_21	F1	F2	F3
N		9	3	3	3
Normal Parameters ^{a,b}	Mean	6.00	6.00	6.00	6.00
	Std. Deviation	.000 ^c	.000 ^c	.000 ^c	.000 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Uji_Mutu_pH_Basis_Hari_21
Chi-Square	.000
df	2
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:

Uji_Mutu_pH_Basis_Hari_21

Uji daya sebar**Tests of Normality**

	Uji_Mutu_Daya_Sebar_Hari_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Sebar_Hari_1	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000
	3	.175	3	.	1.000	3	1.000
	4	.385	3	.	.750	3	.000
	5	.385	3	.	.750	3	.000
	6	.253	3	.	.964	3	.637
	7	.175	3	.	1.000	3	1.000
	8	.385	3	.	.750	3	.000
	9	.385	3	.	.750	3	.000
	10	.175	3	.	1.000	3	1.000
	11	.385	3	.	.750	3	.000
	12	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mutu_Daya_Sebar_Hari_1	F1_Beban_0	F1_Beban_50	F1_Beban_100	F1_Beban_150	F2_Beban_0
N		36	3	3	3	3	3
Normal Parameters ^{a,b}	Mean	4.753	4.733	5.567	6.400	6.733	3.833
	Std. Deviation	1.0421	.0577	.0577	.1000	.1155	.0577
Most Extreme Differences	Absolute	.127	.385	.385	.175	.385	.385
	Positive	.127	.385	.282	.175	.282	.385
	Negative	-.098	-.282	-.385	-.175	-.385	-.282
Test Statistic		.127	.385	.385	.175	.385	.385
Asymp. Sig. (2-tailed)		.154 ^c	e,d	e,d	e,d	e,d	e,d

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Significance can not be computed because sum of case weights is less than 5.

F2_Beban_50	F2_Beban_100	F2_Beban_150	F3_Beban_0	F3_Beban_50	F3_Beban_100	F3_Beban_150
3	3	3	3	3	3	3
4.633	4.900	5.200	3.467	3.600	3.833	4.133
.1528	.1000	.1732	.0577	.1000	.0577	.0577
.253	.175	.385	.385	.175	.385	.385
.253	.175	.385	.282	.175	.385	.385
-.196	-.175	-.282	-.385	-.175	-.282	-.282
.253	.175	.385	.385	.175	.385	.385
c,d	c,d	c,d	c,d	c,d	c,d	c,d

Test Statistics^{a,b}

	Hasil_Uji_Mutu_Daya_Seb ar_Hari_1
Chi-Square	34.547
df	11
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:
Uji_Mutu_Daya_Sebar_Ha
ri_1

Basis hari ke-1

Tests of Normality

Uji_Mutu_Daya_Sebar_B asis_Hari_1		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Se bar_Basis_Hari_1	1	.385	3	.	.750	3	.000
	2	.253	3	.	.964	3	.637
	3	.253	3	.	.964	3	.637
	4	.175	3	.	1.000	3	1.000
	5	.175	3	.	1.000	3	1.000
	6	.253	3	.	.964	3	.637
	7	.385	3	.	.750	3	.000
	8	.385	3	.	.750	3	.000
	9	.175	3	.	1.000	3	1.000
	10	.385	3	.	.750	3	.000
	11	.175	3	.	1.000	3	1.000
	12	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mutu_Daya_Seb ar_Basis_Hari_1	F1_Beban_0	F1_Beban_5 0	F1_Beban_1 00	F1_Beban_1 50	F2_Beban_0
N		36	3	3	3	3	3
Normal Parameters ^{a,b}	Mean	4.569	4.567	5.233	6.167	6.600	3.700
	Std. Deviation	1.0326	.0577	.1528	.1528	.1000	.1000
Most Extreme Differences	Absolute	.126	.385	.253	.253	.175	.175
	Positive	.126	.282	.253	.196	.175	.175
	Negative	-.092	-.385	-.196	-.253	-.175	-.175
Test Statistic		.126	.385	.253	.253	.175	.175
Asymp. Sig. (2-tailed)		.160 ^c	.e,d	.e,d	.e,d	.e,d	.e,d

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Significance can not be computed because sum of case weights is less than 5.

F2_Beban_5 0	F2_Beban_1 00	F2_Beban_1 50	F3_Beban_0	F3_Beban_5 0	F3_Beban_1 00	F3_Beban_1 50
3	3	3	3	3	3	3
4.233	4.867	5.067	3.300	3.433	3.700	3.967
.1528	.1155	.1155	.1000	.0577	.1000	.0577
.253	.385	.385	.175	.385	.175	.385
.253	.385	.385	.175	.385	.175	.282
-.196	-.282	-.282	-.175	-.282	-.175	-.385
.253	.385	.385	.175	.385	.175	.385
.e,d	.e,d	.e,d	.e,d	.e,d	.e,d	.e,d

Test Statistics^{a,b}

	Hasil_Uji_Mutu_Daya_Seb ar_Basis_Hari_1
Chi-Square	34.556
df	11
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:

Uji_Mutu_Daya_Seb
ar_Basis_Hari_1

Test Statistics^{a,b}

	Hasil_Uji_Mutu_Daya_Sebar_Hari_21
Chi-Square	34.473
df	11
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:
Uji_Mutu_Daya_Sebar_Hari_21

Kontrol negatif hari ke-21

Tests of Normality

Uji_Mutu_Daya_Sebar_Basis_Hari_21	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Sebar_Basis_Hari_21	.385	3	.	.750	3	.000
1	.385	3	.	.750	3	.000
2	.385	3	.	.750	3	.000
3	.385	3	.	.750	3	.000
4	.385	3	.	.750	3	.000
5	.385	3	.	.750	3	.000
6	.253	3	.	.964	3	.637
7	.385	3	.	.750	3	.000
8	.385	3	.	.750	3	.000
9	.385	3	.	.750	3	.000
10	.385	3	.	.750	3	.000
11	.253	3	.	.964	3	.637
12	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Uji_Mutu_Daya_Sebar_Hari_21	F1_Beban_0	F1_Beban_50	F1_Beban_100	F1_Beban_150	F2_Beban_0
N		36	3	3	3	3	3
Normal Parameters ^{a,b}	Mean	4.558	4.767	5.333	6.067	5.167	3.833
	Std. Deviation	.7948	.0577	.1155	.0577	.1155	.0577
Most Extreme Differences	Absolute	.120	.385	.385	.385	.385	.385
	Positive	.120	.282	.282	.282	.385	.385
	Negative	-.113	-.385	-.385	-.385	-.282	-.282
Test Statistic		.120	.385	.385	.385	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	.e	.e	.e	.e	.e

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

F2_Beban_50	F2_Beban_100	F2_Beban_150	F3_Beban_0	F3_Beban_50	F3_Beban_100	F3_Beban_150
3	3	3	3	3	3	3
4.367	5.000	5.167	3.433	3.633	3.833	4.100
.1528	.1732	.1155	.0577	.0577	.1528	.1000
.253	.385	.385	.385	.385	.253	.175
.196	.385	.385	.385	.385	.253	.175
-.253	-.282	-.282	-.282	-.282	-.196	-.175
.253	.385	.385	.385	.385	.253	.175
.e,e	.e,e	.e,e	.e,e	.e,e	.e,e	.e,e

Test Statistics^{a,b}

	Hasil_Uji_Mutu_Daya_Seb ar_Basis_Hari_21
Chi-Square	34.063
df	11
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable:

Uji_Mutu_Daya_Seb
ar_Basis_Hari_21

Uji daya lekat

Tests of Normality

Uji_Mutu_Daya_Lekat_Hari_1		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_1	1	.227	3	.	.983	3	.747
	2	.273	3	.	.945	3	.549
	3	.232	3	.	.980	3	.726

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_1	.744	2	6	.514

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_1	Between Groups	3.526	2	1.763	154.497	.000
	Within Groups	.068	6	.011		
	Total	3.594	8			

Kontrol negatif hari ke-1

Tests of Normality

	Uji_Mutu_Daya_Lekat_Basis_Hari_1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_1	1	.253	3	.	.964	3	.637
	2	.282	3	.	.936	3	.510
	3	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_1	.244	2	6	.791

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_1	Between Groups	3.035	2	1.518	644.297	.000
	Within Groups	.014	6	.002		
	Total	3.049	8			

Sediaan hari ke-21

Tests of Normality

	Uji_Mutu_Daya_Lekat_Hari_21	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_21	1	.253	3	.	.964	3	.637
	2	.245	3	.	.971	3	.672
	3	.229	3	.	.981	3	.739

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_21	.478	2	6	.642

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Hari_21	Between Groups	3.410	2	1.705	202.468	.000
	Within Groups	.051	6	.008		
	Total	3.461	8			

Kontrol negatif hari ke-21

Tests of Normality

Uji_Mutu_Daya_Lekat_Basis_Hari_21		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_21	1	.187	3	.	.998	3	.915
	2	.292	3	.	.923	3	.463
	3	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_21	.645	2	6	.557

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_Uji_Mutu_Daya_Lekat_Basis_Hari_21	Between Groups	3.261	2	1.631	708.932	.000
	Within Groups	.014	6	.002		
	Total	3.275	8			

Lampiran 13. Analisis data SPSS uji stabilitas sediaan

Uji viskositas

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskosit as_F1	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilit as_Viskosita s_F1	F1_Sebelum	F1_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	270.00	283.33	256.67
	Std. Deviation	15.492	5.774	5.774
Most Extreme Differences	Absolute	.241	.385	.385
	Positive	.241	.385	.282
	Negative	-.241	-.282	-.385
Test Statistic		.241	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilit as_Viskosita s_F1
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_F1

Test Statistics^a

	F1_Sesudah - F1_Sebelum
Z	-1.633 ^b
Asymp. Sig. (2-tailed)	.102

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskosit	1	.385	3	.	.750	3	.000
as_F2	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_Viskositas_F2	F2_Sebelum	F2_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	316.67	326.67	306.67
	Std. Deviation	12.111	5.774	5.774
Most Extreme Differences	Absolute	.209	.385	.385
	Positive	.209	.282	.282
	Negative	-.198	-.385	-.385
Test Statistic		.209	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilitas_Viskositas_F2
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_F2

Test Statistics^a

	F2_Sesudah - F2_Sebelum
Z	-1.732 ^b
Asymp. Sig. (2-tailed)	.083

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Tests of Normality

	Stabilitas_Viskositas_F3	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskosit	1	.385	3	.	.750	3	.000
as_F3	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilit as_Viskosita s_F3	F3_Sebelum	F3_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	385.00	396.67	373.33
	Std. Deviation	13.784	5.774	5.774
Most Extreme Differences	Absolute	.195	.385	.385
	Positive	.195	.282	.385
	Negative	-.195	-.385	-.282
Test Statistic		.195	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilit as_Viskosita s_F3
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_F3

Test Statistics^a

	F3_Sesudah - F3_Sebelum
Z	-1.633 ^b
Asymp. Sig. (2-tailed)	.102

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Tests of Normality

	Stabilitas_Viskositas_Basis_F1	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskositas_Basis_F1	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_Viskositas_Basis_F1	Basis_F1_Sebelum	Basis_F1_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	286.67	296.67	276.67
	Std. Deviation	12.111	5.774	5.774
Most Extreme Differences	Absolute	.209	.385	.385
	Positive	.209	.282	.282
	Negative	-.198	-.385	-.385
Test Statistic		.209	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	^{c,e}	^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilitas_Viskositas_Basis_F1
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_Basis_F1

Test Statistics^a

	Basis_F1_Sedang - Basis_F1_Belum
Z	-1.732 ^b
Asymp. Sig. (2-tailed)	.083

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Kontrol negatif 2**Tests of Normality**

	Stabilitas_Viskositas_Basis_F2	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskositas_Basis_F2	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_Viskositas_Basis_F2	Basis_F2_Selama	Basis_F2_Sudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	343.33	353.33	333.33
	Std. Deviation	12.111	5.774	5.774
Most Extreme Differences	Absolute	.209	.385	.385
	Positive	.198	.385	.385
	Negative	-.209	-.282	-.282
Test Statistic		.209	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilitas_Viskositas_Basis_F2
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_Basis_F2

Test Statistics^a

	Basis_F2_Sudah - Basis_F2_Selama
Z	-1.732 ^b
Asymp. Sig. (2-tailed)	.083

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Tests of Normality

	Stabilitas_Viskositas_Basis_F3	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_Viskositas_Basis_F3	1	.385	3	.	.750	3	.000
	2	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_Viskositas_Basis_F3	Basis_F3_Selama	Basis_F3_Sudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	406.67	416.67	396.67
	Std. Deviation	12.111	5.774	5.774
Most Extreme Differences	Absolute	.209	.385	.385
	Positive	.209	.282	.282
	Negative	-.198	-.385	-.385
Test Statistic		.209	.385	.385
Asymp. Sig. (2-tailed)		.200 ^{c,d}	. ^{c,e}	. ^{c,e}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_Stabilitas_Viskositas_Basis_F3
Chi-Square	4.091
df	1
Asymp. Sig.	.043

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_Viskositas_Basis_F3Test Statistics^a

	Basis_F3_Sudah - Basis_F3_Selama
Z	-1.732 ^b
Asymp. Sig. (2-tailed)	.083

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Uji pH

Tests of Normality^{a,b}

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- a. Hasil_Stabilitas_pH_F1
is constant when
Stabilitas_pH_F1 = 1. It
has been omitted.
- b. Hasil_Stabilitas_pH_F1
is constant when
Stabilitas_pH_F1 = 2. It
has been omitted.

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilit as_pH_F1	F1_Sebelum	F2_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	6.00	6.00	6.00
	Std. Deviation	.000 ^c	.000 ^c	.000 ^c

- a. Test distribution is Normal.
- b. Calculated from data.
- c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilit as_pH_F1
Chi-Square	.000
df	1
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_F1

Test Statistics^a

	F2_Sesudah - F1_Sebelum
Z	.000 ^b
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

Tests of Normality^{a,b}

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a. Hasil_Stabilitas_pH_F2 is constant when Stabilitas_pH_F2 = 1. It has been omitted.

b. Hasil_Stabilitas_pH_F2 is constant when Stabilitas_pH_F2 = 2. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

	Hasil_Stabilitas_pH_F2	F2_Sebelum	F2_Sesudah
N	6	3	3
Normal Parameters ^{a,b}			
Mean	6.00	6.00	6.00
Std. Deviation	.000 ^c	.000 ^c	.000 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilitas_pH_F2
Chi-Square	.000
df	1
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_F2

Test Statistics^a

	F2_Sesudah - F2_Sebelum
Z	.000 ^b
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

Tests of Normality^b

Stabilitas_pH_F3	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Hasil_Stabilitas_pH_F3 1	.385	3	.	.750	3	.000

a. Lilliefors Significance Correction

b. Hasil_Stabilitas_pH_F3 is constant when Stabilitas_pH_F3 = 2. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilit as_pH_F3	F3_Sebelum	F3_Sesudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	5.17	5.33	5.00
	Std. Deviation	.408	.577	.000 ^e
Most Extreme Differences	Absolute	.492	.385	
	Positive	.492	.385	
	Negative	-.342	-.282	
Test Statistic		.492	.385	
Asymp. Sig. (2-tailed)		.000 ^c	. ^{c,d}	

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Significance can not be computed because sum of case weights is less than 5.

e. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilit as_pH_F3
Chi-Square	1.000
df	1
Asymp. Sig.	.317

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_F3

Test Statistics^a

	F3_Sesudah - F3_Sebelum
Z	-1.000 ^b
Asymp. Sig. (2-tailed)	.317

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

Tests of Normality^{a,b}

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a. Hasil_Stabilitas_pH_Basis_F1 is constant when Stabilitas_pH_Basis_F1 = 1. It has been omitted.

b. Hasil_Stabilitas_pH_Basis_F1 is constant when Stabilitas_pH_Basis_F1 = 2. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

	Hasil_Stabilitas_pH_Basis_F1	Basis_F1_Sebelum	Basis_F1_Sesudah
N	6	3	3
Normal Parameters ^{a,b}			
Mean	6.00	6.00	6.000
Std. Deviation	.000 ^c	.000 ^c	.0000 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilitas_pH_Basis_F1
Chi-Square	.000
df	1
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_Basis_F1**Test Statistics^a**

	Basis_F1_Sedang - Basis_F1_Sedang belum
Z	.000 ^b
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

Kontrol negatif 2

Tests of Normality^{a,b}

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a. Hasil_Stabilitas_pH_Basis_F2 is constant when Stabilitas_pH_Basis_F2 = 1. It has been omitted.

b. Hasil_Stabilitas_pH_Basis_F2 is constant when Stabilitas_pH_Basis_F2 = 2. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_pH_Basis_F2	Basis_F2_Sedang	Basis_F2_Sudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	6.00	6.00	6.00
	Std. Deviation	.000 ^c	.000 ^c	.000 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilitas_pH_Basis_F2
Chi-Square	.000
df	1
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_Basis_F2

Test Statistics^a

	Basis_F2_Sudah - Basis_F2_Sedang
Z	.000 ^b
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

Tests of Normality^{a,b}

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a. Hasil_Stabilitas_pH_Basis_F3 is constant when Stabilitas_pH_Basis_F3 = 1. It has been omitted.

b. Hasil_Stabilitas_pH_Basis_F3 is constant when Stabilitas_pH_Basis_F3 = 2. It has been omitted.

One-Sample Kolmogorov-Smirnov Test

		Hasil_Stabilitas_pH_Basis_F3	Basis_F3_Seluruh	Basis_F3_Sudah
N		6	3	3
Normal Parameters ^{a,b}	Mean	6.00	6.00	6.00
	Std. Deviation	.000 ^c	.000 ^c	.000 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. The distribution has no variance for this variable. One-Sample Kolmogorov-Smirnov Test cannot be performed.

Test Statistics^{a,b}

	Hasil_Stabilitas_pH_Basis_F3
Chi-Square	.000
df	1
Asymp. Sig.	1.000

a. Kruskal Wallis Test

b. Grouping Variable:
Stabilitas_pH_Basis_F3

Test Statistics^a

	Basis_F3_Se sudah - Basis_F3_Se belum
Z	.000 ^b
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

Tests of Normality^{a,b,c}

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a. Hasil_SPF_Ekstrak_0.1 is constant when SPF_Ekstrak_0.1 = 1. It has been omitted.

b. Hasil_SPF_Ekstrak_0.1 is constant when SPF_Ekstrak_0.1 = 2. It has been omitted.

c. Hasil_SPF_Ekstrak_0.1 is constant when SPF_Ekstrak_0.1 = 3. It has been omitted.

Lampiran 14. Analisis data SPSS nilai SPF

Nilai SPF ekstrak

One-Sample Kolmogorov-Smirnov Test

		Hasil_SPF_E kstrak_0.1
N		3
Normal Parameters ^{a,b}	Mean	61.5132736
	Std. Deviation	.17151532
Most Extreme Differences	Absolute	.263
	Positive	.198
	Negative	-.263
Test Statistic		.263
Asymp. Sig. (2-tailed)		. ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Significance can not be computed because sum of case weights is less than 5.

Test Statistics^{a,b}

	Hasil_SPF_E kstrak_0.1
Chi-Square	2.000
df	2
Asymp. Sig.	.368

a. Kruskal Wallis Test

b. Grouping Variable:
SPF_Ekstrak_0.1

Nilai SPF sediaan

Tests of Normality

	SPF_Sediaan_Gel_Sebe- lum_Stabilitas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_SPF_Sediaan_Gel _Sebelum_Stabilitas	1	.297	3	.	.917	3	.442
	2	.263	3	.	.956	3	.595
	3	.213	3	.	.990	3	.807
	4	.362	3	.	.805	3	.127
	5	.330	3	.	.867	3	.288
	6	.211	3	.	.991	3	.817

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_SPF_Sediaan_Gel_Sebelum_Stabilitas	5.445	5	12	.008

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_SPF_Sediaan_Gel_Sebelum_Stabilitas	Between Groups	8288.015	5	1657.603	128478.072	.000
	Within Groups	.155	12	.013		
	Total	8288.170	17			

Tests of Normality

	SPF_Sediaan_Gel_Sesudah_Stabilitas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil_SPF_Sediaan_Gel_Sesudah_Stabilitas	1	.189	3	.	.998	3	.907
	2	.330	3	.	.866	3	.285
	3	.256	3	.	.962	3	.626
	4	.363	3	.	.802	3	.119
	5	.305	3	.	.906	3	.406
	6	.343	3	.	.843	3	.222

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Hasil_SPF_Sediaan_Gel_Sesudah_Stabilitas	8.412	5	12	.001

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Hasil_SPF_Sediaan_Gel_Sesudah_Stabilitas	Between Groups	6708.816	5	1341.763	63710.968	.000
	Within Groups	.253	12	.021		
	Total	6709.069	17			