

Lampiran 1. Surat Pernyataan Bebas Plagiasi**SURAT PERNYATAAN**

Yang bertanda tangan di bawah ini

Nama : Yuyun Novita Sari

NPM : 201FF04021

Adalah mahasiswa fakultas farmasi, Universitas Bhakti Kencana, Menyatakan dengan sesungguhnya bahwa Naskah Tugas Akhir/Skripsi yang saya tulis dengan judul :

**Formulasi dan Evaluasi Sediaan *Milk Cleanser* dari Susu Kefir Sebagai
Antijerawat pada Bakteri *Propionibacterium acnes***

Adalah benar – benar merupakan hasil karya saya sendiri, apabila di kemudian hari diketahui bahwa isi Naskah Skripsi ini merupakan hasil plagiasi, maka saya bersedia menerima sanksi berupa pembatalan ketulusan dan atau pencabutan gelar yang saya peroleh.

Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung, 05 Agustus 2022



(Yuyun Novita Sari)

NPM 201FF04021

Lampiran 2. Surat Persetujuan untuk dipublikasikan di media on line**SURAT PERNYATAAN**

Yang bertanda tangan di bawah ini,

Nama : Yuyun Novita Sari

N P M : 201FF04021

Menyatakan bahwa demi kepentingan perkembangan ilmu pengetahuan, saya menyetujui abstrak Skripsi yang saya tulis dengan judul:

Formulasi dan Evaluasi Sediaan *Milk Cleanser* dari Susu Kefir Sebagai Antijerawat pada Bakteri *Propionibacterium Acnes*

Untuk dipublikasikan atau ditampilkan di internet atau media lain yaitu *Digital Library* Perpustakaan Universitas Bhakti Kencana untuk kepentingan akademik, sebatas sesuai dengan Undang-Undang Hak Cipta.

Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung, 05 September 2022

Yang membuat pernyataan,



(Yuyun Novita Sari)

NPM 201FF04021

Lampiran 3. Permohonan Izin Penelitian

Jl. Soekarno Hatta No 754 Bandung
☎ 022 7830 760, 022 7830 768
✉ bku.ac.id contact@bku.ac.id

Bandung, 20 Januari 2022

Nomor : 0136/03.FF-03/UBK/I/2022
Lampiran : -
Perihal : Permohonan Izin Penelitian

Kepada Yth.
Kepala UPT Laboratorium Universitas Bhakti Kencana
Di Tempat

Dengan Hormat,
Sehubungan dengan akan diselenggarakannya Penelitian bagi mahasiswa Fakultas Farmasi (Prodi S1) Universitas Bhakti Kencana, T.A 2021/2022, dengan ini kami mengajukan Permohonan Izin Penelitian di tempat yang Bapak/Ibu pimpin.

Adapun nama mahasiswa tersebut adalah :

Nama : Yuyun Novita Sari
NPM : 201FF04021
No. Telp/Hp : 85733262175
Judul Penelitian : Formulasi dan Evaluasi Sediaan Milk Cleanser dari Susu Kefir Sebagai Antijerawat Pada Bakteri "Propionibacterium acnes"
Dosen Pembimbing : Soni Muhsinin, M.Si
Dosen Pembimbing Serta : apt. Mohamad Isonijaya S.Si., M.M

Besar harapan kami, kiranya Bapak/Ibu berkenan mengijinkan permohonan ini. Atas perhatian dan kerjasamanya kami ucapkan terima kasih.

Mengetahui,
Dekan Fakultas Farmasi

Dr. apt. Patonah, M.Si
NIK. 02012010051

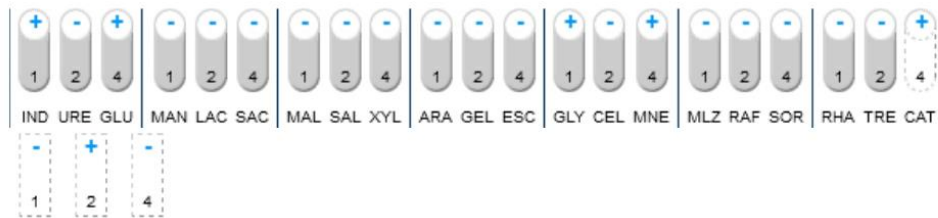
Ketua Prodi Strata 1 (S1) Farmasi


apt. Aris Suhardiman, M.Si.
NIK.0216010091

Lampiran 4 . Sertifikasi Uji Bakteri *Propionibacterium acnes*

LABORATORIUM MIKROBIOLOGI-BIOTEKNOLOGI FARMASI
FAKULTAS FARMASI
UNIVERSITAS PADJADJARAN

Gedung Laboratorium 2, Lantai 2 Fakultas Farmasi UNPAD
 Jl. Raya Bandung - Sumedang KM 21, Jatinangor-Sumedang 45363

**SERTIFIKAT UJI BAKTERI***PROPIONIBACTERIUM ACNES* Atcc. 1223

SPOR GRAM COCC

Significant taxa	% ID	T	Tests against			
Propionibacterium acnes	99.9	0.94				
Next taxon	% ID	T	Tests against			
Propionibacterium granulosum	0.1	0.34	IND	0%	SAC	82%

Mengetahui,
 Kepala Laboratorium Mikrobiologi-
 Bioteknologi Farmasi,



Dr. Tia Rostinawati, M.Si., Apt.
 NIDN 197301032006042001

Lampiran 5 : Persetujuan *Informed Consent*

PERSETUJUAN SETELAH PENJELASAN (PSP)
UNTUK IKUT SERTA DALAM PENELITIAN
(*INFORMED CONSENT*)

Saya telah membaca atau memperoleh penjelasan, sepenuhnya menyadari, mengerti, dan memahami tentang tujuan, manfaat, dan risiko yang mungkin timbul dalam penelitian, serta telah diberi kesempatan untuk bertanya dan telah dijawab dengan memuaskan, juga sewaktu-waktu dapat mengundurkan diri dari keikut sertannya, maka saya **setuju/tidak setuju^{*)}** ikut dalam penelitian ini, yang berjudul : **Formulasi dan Evaluasi Sediaan Milk Cleanser dari Susu Kefir Sebagai Antijerawat Pada Bakteri *Propionibacterium acnes***

Saya dengan sukarela memilih untuk ikut serta dalam penelitian ini tanpa tekanan/paksaan siapapun. Saya akan diberikan salinan lembar penjelasan dan formulir persetujuan yang telah saya tandatangi untuk arsip saya.

Saya setuju:

Ya/Tidak^{*)}

	Tgl.:	Tanda tangan (bila tidak bisa dapat digunakan cap jempol)
Nama Peserta :		
Usia :		
Alamat :		
Nama Peneliti :		

^{*)} coret yang tidak perlu

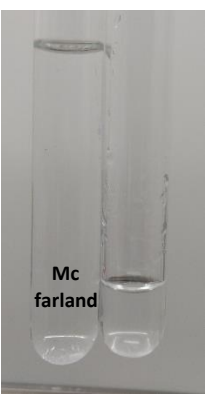
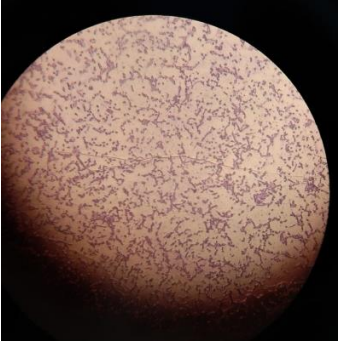
Lampiran 6 : Perhitungan Formula

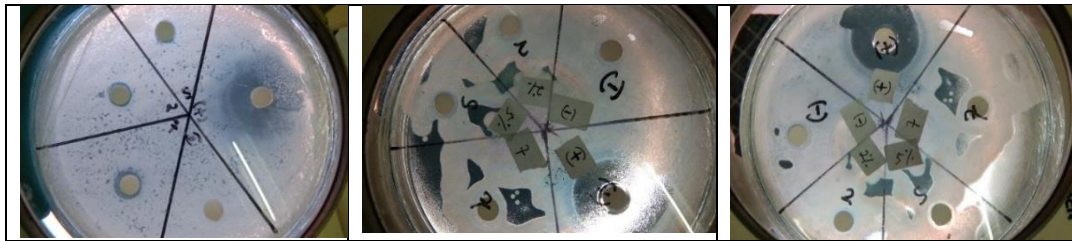
Formula	Kadar %	Perhitungan Bahan (gr)
Asam stearat	5,75	$5,75 / 100 \times 100 \text{ ml} = 5,75$
Setil alkohol	4,25	$4,25 / 100 \times 100 \text{ ml} = 4,25$
Gliserin	5	$5 / 100 \times 100 \text{ ml} = 5$
Isopropil miristat	2	$2 / 100 \times 100 \text{ ml} = 2$
Propylen glikol	5	$5 / 100 \times 100 \text{ ml} = 5$
Trietanolamin	2	$2 / 100 \times 100 \text{ ml} = 2$
Tween 80	5	$5 / 100 \times 100 \text{ ml} = 5$
Spaan 80	5	$5 / 100 \times 100 \text{ ml} = 5$
Dmdm hidantoin	0,2	$0,2 / 100 \times 100 \text{ ml} = 0,2$
Aquadest	100	$= 100 \text{ ml} - (2 + 3 + 5 + 2 + 5 + 2 + 5 + 5 + 0,2 \text{ gr})$ $= 100 \text{ ml} - 29,2 \text{ gr}$ $= 70,8 \text{ ml}$

Lampiran 7 : Fermentasi Susu Kefir Kambing

 Starter kefir	 Proses fermentasi kefir susu kambing selama 24 jam
 uji pH susu Kefir Kambing	 metode titrasi : Uji kadar asam laktat kefir susu kambing

Lampiran 8 : proses uji antibakteri kefir susu kambing terhadap *P.acnes*

 Sterilisasi Alat dan Media dengan Autoklav	 Inokulasi bakteri <i>propionibacterium acnes</i>	 Suspensi bakteri dengan standar Mc Farland	 Pewarnaan gram positif <i>P.acnes</i>
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Keterangan :

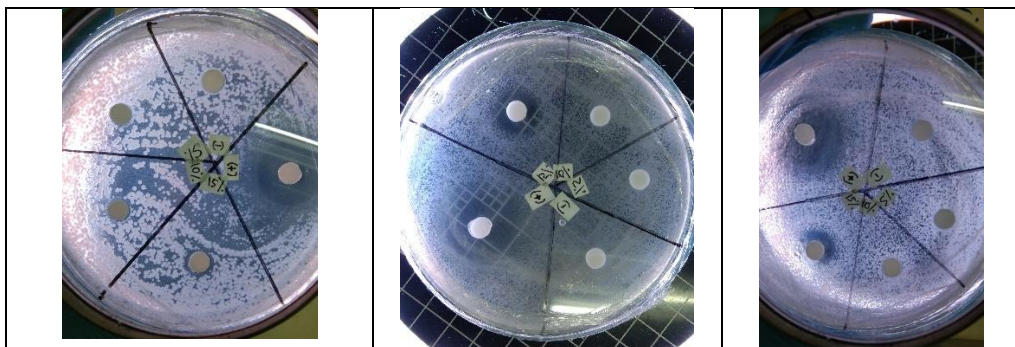
Kontrol positif = klindamisin

Kontrol negatif = aquadest

Kefir starter 2%

Kefir starter 5%

Kefir starter 7%



Keterangan :

Kontrol positif = klindamisin

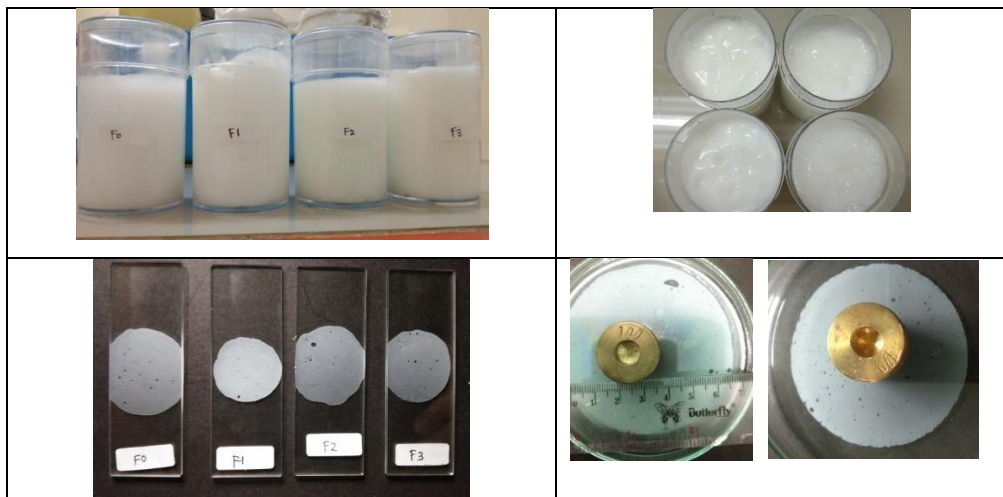
Kontrol negatif = aquadest

Kefir starter 5%

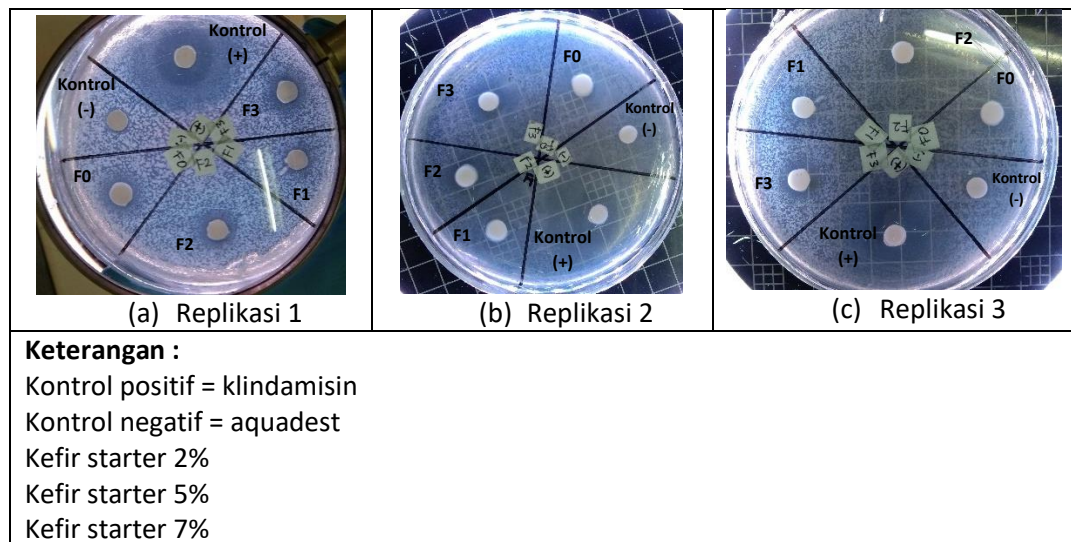
Kefir starter 10%

Kefir starter 15%

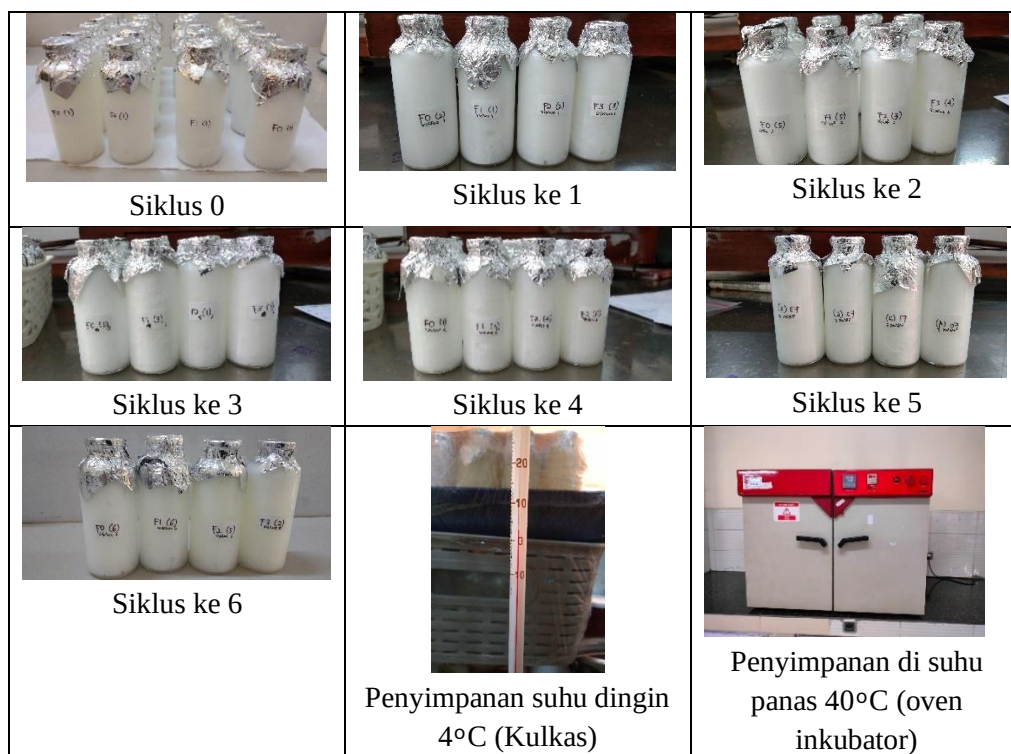
Lampiran 9 : Hasil Formulasi *Milk Cleanser*



Lampiran 10 : Hasil Uji Antibakteri Formula *Milk cleanser*



Lampiran 11 : Proses Uji Stabilitas Freez thaw dipercepat



Lampiran 12 : Hasil Uji Mutu Kefir**a. Uji pH Kefir Susu Kambing Setelah Fermentasi**

Replikasi	pH Konsentrasi starter kefir (%)		
	2	5	7
1	4.16	3.97	3.81
2	4.26	3.96	3.86
3	4.34	3.94	3.87
Rata-rata	4.25	3.95	3.84

b. Uji Kadar Asam Laktat Kefir Susu Kambing

Replikasi	Kadar Asam Laktat Konsentrasi Starter (%)		
	2	5	7
1	0,75	0,8	0,85
2	0,65	0,7	0,86
3	0,75	0,85	0,89
Rata-rata	0,71 %	0,78 %	0,86 %

c. Uji Antibakteri Starter Kefir

Perlakuan (konsentrasi)	Diameter zona hambat tiap pengulangan (mm)			Rata-rata Diameter ± SD
	1	2	3	
Kefir 2%	9	8	9	8.6 ± 0,57
Kefir 5%	11	12	11	11.3 ± 0,57
Kefir 7%	16	14	13	13,3 ± 0,57
Kontrol positif (klindamycin)	20.4	21.3	20	20.5 ± 0,66
Kontrol negatif (Aquadest)	0	0	0	0

d. Uji Antibakteri Kefir Sebagai Zat Aktif

Konsentrasi (Pengenceran)	Diameter zona hambat tiap pengulangan (mm)			Rata-rata Diameter $\pm$ SD
	1	2	3	
Kefir 5%	10	9	9	9,3 $\pm$ 0,57
Kefir 10%	12	13	12	12,3 $\pm$ 0,55
Kefir 15%	15	14	14	14,3 $\pm$ 0,57
Kontrol positif (klindamycin)	21	20	20	20,5 $\pm$ 0,57
Kontrol negatif (Aquadest)	0	0	0	0

Lampiran 13 : Hasil Optimasi Formulasi Milk Cleanser**a. Hasil optimasi uji pH**

Replikasi	F1	F2	F3	F4	F5
1	7,5	7,13	7,28	7,09	7,23
2	7,5	7,14	7,2	7,11	7,46
3	7,46	7,11	7,23	7,14	7,36
Rata-rata	7,48	7,12	7,23	7,11	7,35

b. Hasil optimasi uji Daya Sebar

Replikasi	F1	F2	F3	F4	F5
1	5,7	6,7	6,2	5	8
2	5,5	7	6,5	4,9	8
3	5,8	7	6	4,7	8,5
Rata-rata	5,6	6,9	6,2	4,8	8,1

c. Hasil optimasi uji viskositas

Replikasi	F1	F2	F3	F4	F5
1	6960	3600	9200	14440	2881
2	6240	3760	8560	13240	1860
3	6000	3520	8120	12040	2865
Rata-rata	6400	3636	8626	13240	2535

Lampiran 14 : Hasil Evaluasi Formulasi *Milk Cleanser***a. Hasil uji ph formula *milk cleanser***

Formula	replikasi			rata-rata	Standar deviasi
	1	2	3		
F0	7,1	7,19	7,09	7,12	0,055075705
F1	6,23	6,19	6,22	6,21	0,02081666
F2	6,14	6,19	6,21	6,18	0,036055513
F3	6,2	6,03	6	6,18	0,107857931

b. Hasil uji daya sebar formula *milk cleanser*

Formula	Replikasi			rata-rata	Standar deviasi
	1	2	3		
F0	6,8	6,9	7	6,9	0,1
F1	6,7	6,6	7	6,7	0,2081666
F2	6,5	6,7	6,6	6,6	0,1
F3	6,2	6,4	6,6	6,4	0,2

c. Hasil uji viskositas formula *milk cleanser*

Formula	Replikasi			rata-rata	Standar deviasi
	1	2	3		
F0	3600	3400	4520	3840	597,3273809
F1	5440	4680	5960	5360	643,7390776
F2	6680	6160	6360	6400	262,297541
F3	6280	6760	6720	6586	266,3331247

d. Uji iritasi

Tabel : Pengamatan iritasi

Pengamatan	Responden / sukarelawan														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Kemerahan di kulit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gatal pada kulit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Keterangan :

+ : Terjadi iritasi

- : tidak terjadi iritasi

e. Hasil Aktivitas Antibakteri Formula *Milk Cleanser*

perlakuan (konsentrasi)	diameter zona hambat (mm) (replikasi)			rata-rata	Standar deviasi
	1	2	3		
F0	3	2,5	3,2	2,9	0,360555128
F1	8	7	8	7,6	0,577350269
F2	12	13	12	12,3	0,577350269
F3	16	15	16	15,6	0,577350269
(+) Klindamisin	20	21	20	20,3	0,577350269

Lampiran 15 : Hasil Stabilitas Milk Cleanser selama 6 siklus *freeze thaw*

e. Hasil Stabilitas pH

Siklus ke -	formula	Rata - Rata			rata-rata	Standar Deviasi
		1	2	3		
Siklus 1	F0	8,21	8,12	8,19	8,17	0,047258156
	F1	7,77	7,72	7,62	7,7	0,076376262
	F2	7,63	7,59	7,61	7,61	0,02
	F3	7,3	7,31	7,29	7,3	0,01
Siklus 2	F0	8,14	8,16	8,15	8,15	0,01
	F1	7,62	7,64	7,65	7,63	0,015275252
	F2	7,51	7,54	7,53	7,52	0,015275252
	F3	7,32	7,3	7,27	7,29	0,025166115
Siklus 3	F0	8,14	8,15	8,13	8,14	0,01
	F1	7,36	7,38	7,38	7,37	0,011547005
	F2	7,28	7,26	7,25	7,26	0,015275252
	F3	7,02	6,9	6,85	6,92	0,087368949
Siklus 4	F0	7,29	7,3	7,28	7,29	0,01
	F1	6,27	6,53	6,51	6,43	0,144683563
	F2	6,36	6,39	6,36	6,37	0,017320508
	F3	6,08	6,11	6,1	6,09	0,015275252
Siklus 5	F0	7,27	7,28	7,29	7,28	0,01
	F1	6,56	6,66	6,57	6,59	0,055075705
	F2	6,48	6,49	6,47	6,48	0,01
	F3	6,24	6,25	6,22	6,32	0,015275252
Siklus 6	F0	7,5	7,49	7,49	7,49	0,005773503
	F1	6,68	6,6	6,57	6,61	0,056862407
	F2	6,43	6,39	6,42	6,41	0,02081666
	F3	6,01	6,04	6,02	6,02	0,015275252

b. Hasil Stabilitas Daya Sebar

Siklus ke	Formula	Replikasi			Rata- rata	Standar deviasi
		1	2	3		
siklus 1	F0	6,8	6,7	6,7	6,733333	0,057735027
	F1	6,6	6,5	6,6	6,566667	0,057735027
	F2	6,7	6,8	6,8	6,766667	0,057735027
	F3	6,1	5,9	6	6	0,1
Siklus 2	F0	6,5	6,6	6,7	6,6	0,1
	F1	6,4	6,5	6,6	6,5	0,1
	F2	6,8	6,7	6,7	6,733333	0,057735027
	F3	6,1	6,3	6,1	6,166667	0,115470054
Siklus 3	F0	6,8	6,9	6,7	6,8	0,1
	F1	6,6	6,7	6,5	6,6	0,1
	F2	6,9	6,9	6,8	6,866667	0,057735027
	F3	6,3	6,2	6,1	6,2	0,1
siklus 4	F0	6,8	6,6	6,7	6,7	0,1
	F1	6,3	6,4	6,4	6,366667	0,057735027
	F2	6,9	6,9	6,8	6,866667	0,057735027
	F3	6	6,1	6,1	6,066667	0,057735027
siklus 5	F0	7	6,9	6,8	6,9	0,1
	F1	6,5	6,6	6,7	6,6	0,1
	F2	6,8	6,8	6,9	6,833333	0,057735027
	F3	5,9	6	6	5,966667	0,057735027
siklus 6	F0	6,8	6,9	6,8	6,8	0,057735027
	F1	6,6	6,6	6,5	6,566667	0,057735027
	F2	6,8	6,8	6,9	6,833333	0,057735027
	F3	5,9	5,9	5,8	5,866667	0,057735027

c. Hasil Stabilitas Viskositas

Siklus ke -	formula	Replikasi			rata-rata	Standar Deviasi
		1	2	3		
Siklus 1	F0	3889	3650	3800	3746	120,7904522
	F1	6000	5840	5280	5706	378,0652501
	F2	8240	8200	7400	7946	473,8494838
	F3	9360	9000	8120	8826	637,9132647
Siklus 2	F0	3960	3360	3260	3526	378,5938897
	F1	9520	8480	8080	8693	743,3258595
	F2	9480	9120	9040	9231	234,3786111
	F3	10120	11120	11240	10826	614,9254697
Siklus 3	F0	3920	3160	3840	3640	417,6122604
	F1	6640	7400	7160	7066	388,5013942
	F2	9040	8920	8560	8840	249,7999199
	F3	9280	9240	8560	9026	404,6397575
Siklus 4	F0	3600	3840	3760	3733	122,2020185
	F1	13040	14280	13280	13533	657,6726643
	F2	9880	9960	9920	9880	40
	F3	9040	9120	9080	9080	40
Siklus 5	F0	3960	3120	3800	3636	446,0194316
	F1	7720	6920	7640	7426	440,6056438
	F2	8920	7720	7960	8200	634,9803147
	F3	9760	8720	8320	8933	743,3258595
Siklus 6	F0	3960	3680	4160	3933	241,1085509
	F1	9760	9880	9920	9853	83,26663998
	F2	9800	9560	9720	9693	122,2020185
	F3	9400	9720	9320	9480	211,6601049

COA Asam Stearat



PT. WILMAR NABATI INDONESIA
Quality Control Department



F/WINA-QC-10-011

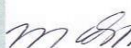
Date : 18/February/2021

CERTIFICATE OF ANALYSIS

Ref No. : FA/QC/GSK/21/II-189
Customer : UNICHEM BDG
Product : STEARIC ACID 1807
Manufactured Date : JANUARY 15, 2021
Best Before : JANUARY 15, 2022
Lot No. : B210115-12W

Parameter	Unit	Result	Specification	Test Method
Acid Value	mg KOH/g	206	195 min	AOCS Te 1a - 64 : 2017
Saponification Value	mg KOH/g	208	196 min	AOCS TI 1a - 64 : 2017
Iodine Value	% I2 absorbed	3.3	4 max	AOCS Tg 1a - 64 : 2017
Color 5 1/2" Lov	R/Y	1.2/5.0	2.0/15 max	AOCS Cc 13e-92 : 2017
Titre	°C	52.8	52 min	AOCS Tr 1a - 64 : 2017

Certified Correct




Mahfud Amaroh
Deputi Manager Teknis

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Factory / Laboratory :
Jl. Kapten Darmo Sugondo No. 56
Gresik - 61124, East Java - Indonesia
Tel : +6231-3989101 Fax : +6231-3978922

Page 1 Of 1

COA Setil Alkohol

PT Ecogreen Oleochemicals**CERTIFICATE OF ANALYSIS**

SHIPMENT/LOT NO. : 2-1643-21

DESCRIPTION : ECOROL 16/98P (CETYL ALCOHOL PASTILLES)

Date : 29.08.2021

MANUFACTURER : PT ECOGREEN OLEOCHEMICALS

SPEC. NO. : 3160-12

REFERENCE : 1010201990

CUST. PO NO. : LJC2106099

CONTAINER NO.	BATCH NO.	PACKAGING	MANUFACTURING DATE	EXPIRY DATE
SPNU 2944484	P4-229-T	360 BAG	02.08.2021	02.08.2023
SPNU 2944484	P4-245-T	240 BAG	14.08.2021	14.08.2023
SPNU 2933582	P4-247-T	600 BAG	16.08.2021	16.08.2023

Analysis	Test Method	Specification		P4-229-T	P4-245-T	P4-247-T
		Min	Max			
Homolog Distribution (wt%) :	EOB-TM-QA-613					
C14 & lower			2.0	0.0	0.0	0.0
C16		98.0		99.0	99.4	99.4
C18 & higher			2.0	1.0	0.6	0.6
Hydrocarbons (wt%)	EOB-TM-QA-613		0.50	0.18	0.16	0.17
Acid Value (mg KOH/g)	AOCS Te 2a-64		0.10	0.01	0.01	0.01
Saponification Value (mg KOH/g)	AOCS TI 1a-64		0.50	0.10	0.10	0.13
Iodine Value (g I2/100 g)	EOB-TM-QA-607		0.10	0.01	0.01	0.01
Moisture (wt%)	DIN ISO 51 777-1		0.30	0.11	0.10	0.11
Color, APHA	AOCS Ea 9-65		10	3	3	3
Solidification point (°C)	AOCS Ce 12-59	48.0	50.0	49.0	49.0	49.0
Hydroxyl Value (mg KOH/g)	EOB-TM-QA-613	228	232	231	231	231

Certified Correct :

PT Ecogreen Oleochemicals
 Adrian

QA Superintendent

CONTROLLED SYSTEM PRINTOUT - VALID WITHOUT SIGNATURE

BATAM PLANT

Jl. Pelabuhan Kav. 1 Kabil, Batam Island 29467, Indonesia.
 Mailing Address : PO. Box. 1010 Nagoya Plaza, Batam Island 29432, Indonesia.
 Telephone : (62-778) 711002 (H) Facsimile : (62-778) 711007
 E-mail : info.batam@ecogreenoleo.com
 ISO 9001, ISO 14001, ISO 22000

EO-QA-008, Rev.7, 9 July 2021

COA# 1700010031

PT Ecogreen Oleochemicals



CERTIFICATE OF ANALYSIS

Page 2 Of 2

SHIPMENT/LOT NO. : 2-2049-21

DESCRIPTION : ECOCEROL (REFINED GLYCERIN)

MANUFACTURER : PT ECOGREEN OLEOCHEMICALS

SPEC. NO. : 2997-03

REFERENCE : 1010202056 / 10

CUST. PO NO. : LJO2109253

Date : 21.10.2021

CONTAINER NO.	BATCH NO.	PACKAGING	MANUFACTURING DATE	EXPIRY DATE
SPNU 2922567	32-327-T	80 DR	07.10.2021	07.10.2023
SPNU 2918633	32-327-T	80 DR	07.10.2021	07.10.2023
SPNU 2939554	32-327-T	80 DR	07.10.2021	07.10.2023
SPNU 2901986	32-327-T	79 DR	07.10.2021	07.10.2023
SPNU 2929561	32-327-T	80 DR	07.10.2021	07.10.2023

Analysis	Test Method	Specification		32-327-T
		Min	Max	
Assay (wt%)	USP 42	99.7		99.9
Identification A (Infra Red Absorption)*	USP 42	Pass		Pass
Identification B (Limit of DEG and EG):	USP 42			
Diethylene Glycol (wt%) *	USP 42		0.025	<0.025
Ethylene Glycol (wt%) *	USP 42		0.025	<0.025
Identification C (Chromatography) *	USP 42	Pass		Pass
Inorganic Impurities:	USP 42			
Chloride (ppm)	USP 42		10	<10
Sulfate (ppm) *	USP 42		20	<20
Heavy Metals, as Pb (ppm) *	USP 42		5	<5
Residue on Ignition (wt%) *	USP 42		0.01	<0.01
Organic Impurities:	USP 42			
Related Compounds	USP 42			
Individual Impurities (wt%) *	USP 42		0.1	<0.1
Total Impurities (wt%) *	USP 42		1.0	<1.0
Limit of Chlorinated Comp. as Cl (ppm)*	USP 42		30	<30
Fatty Acids and Esters (mL NaOH 0.5N)	USP 42		1.00	0.13
Color (APHA)	AOCS Ea 9 - 65, ASTM D1209		10	3
Specific Gravity at 25/25 °C	APAG-GL-008	1.2612		1.2618
Water (wt%)	USP 42		0.30	0.05
Readily Carbonizable Substances *	USP 22 (271)	Pass		Pass

Certified Correct :

PT Ecogreen Oleochemicals

Adrian

QA Superintendent

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Mailing Address : PO. Box. 1010 Nagoya Plaza, Batam Island 29432, Indonesia.

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E-mail : info.batam@ecogreenoleo.com

ISO 9001, ISO 14001, ISO 22000

Date 2021-10-29 (YYYY-MM-DD) Time 04:08:06 (Greenwich Mean Time) Page 1 of 4

 DOW CHEMICAL PACIFIC (SINGAPORE) PRIVATE LIMITED					
Certificate of Analysis Product Number 00000114877 Product Name Propylene Glycol USP/EP Delivery No. 822028157 / 000010 Order Number 113021183 Shipping Units 80.000 DR Date Shipped 2021-10-28 (YYYY-MM-DD) Shipment No. 39692131			Customer Information Container ID TRHU1928425 Specification Number 000000059518		
Batch Number C815LANR31 Seal Number 19647028 Expiration Date 2023-10-23 (YYYY-MM-DD) Manufacturing Date 2021-10-23 (YYYY-MM-DD) Quantity 80.000 DR Net Weight 17200.000 KG Manufacturing Plant MTP AIE PG Manufacturer Address 10/4 Moo 2 ASIA IND EST BANCHANG Rayong 21130					
It is hereby certified that the material indicated above has been inspected and tested in accordance with the conditions and requirements of the contract or purchase order and, unless agreed otherwise conforms in all respects to the specification relevant thereto and it meets all requirements of the current United States Pharmacopoeia, current Food Chemical Codex, current European Pharmacopoeia and current Pharmacopoeia of Japan.					
Test	Unit	Lower Limit	Upper Limit	Value	Method
Assay	%	99.80	-	99.94	Current USP
M Acidity	ml	-	0.20	0.02	Current USP
M Chlorides	ppm	-	70	< 70	Current USP
M Residue on Ignition per 50g	mg	-	3.50	0.97	Current USP
M Specific Gravity @ 25/25degC		1.035	1.037	1.036	Current USP
Spec. Grav. @ 20C		1.0376	1.0389	1.0384	ASTM D4052
M Sulfate	ppm	-	60	< 60	Current USP
Water Content	%	-	0.200	0.009	Current USP

CERTIFICATE OF ANALYSIS

TRIETHANOLAMINE 99% 232 KG STEEL DRUM

Carrier/Vehicle ID : DRYU 2958536
Customer P.O. No. : QTN-0000015574-1
Sales Order No. : 100245939
Delivery Qty : 17.000
Delivery Unit : DR
Material ID : 72000240
Customer No. : 8010000433
Batch No. : 25552D
Delivery No. : 500407257
Inspection Dt. : 13 MAR 2019

NOTE: THE TEST CHARACTERISTICS AND THEIR UNITS, TOLERANCES AND RESULTS LISTED BELOW WILL VARY DEPENDING ON THE BUSINESS, CUSTOMER & MATERIAL REQUIREMENTS.

Test Characteristics	Results	Unit	Tolerance Limits	Method
TRIETHANOLAMINE	99.5	WTP	99.0 - 100.0	1B-17A-0.1
MONOETHANOLAMINE	0.00	WTP	0.00 - 0.10	1B-17A-0.1
DIETHANOLAMINE	0.1	WTP	0.0 - 0.5	1B-17A-0.1
WATER	0.1	WTP	0.0 - 0.2	1B-17A-0.2
IRON	0	PPM	0 - 10	1B-17A-0.4
COLOR	17	PTCO	0 - 40	1B-17A-0
APPEARANCE	PASS:Clear	-	-	1B-17A-0

Production Date : 13 Mar 2019

Expiry Date : 13 Mar 2024

This product meets the Product Sales Specification. This result is based on the sample being tested.

This is a computer generated document. No signature is required.



IOI Acidchem Sdn Bhd
198301016306 (111715-H)

Certificate of Analysis

Page 1 of 2

Date : 01-Jul-2021 Sample Date : 28-Apr-2021
 Certificate No : 890000466897 Approved Date : 29-Jun-2021
 Product : ISOPROPYL MYRISTATE (IPM) Manufacturing Date: 27-Apr-2021
 Expiry Date : 27-Apr-2023
 Batch No : M1242A
 SO No :
 Customer PO No :
 Sample Type : DRUMS
 Sampling Procedure : WI-QC-003/WI-QC-005/WI-QC-022
 Quantity : 3.500 MTS

ANALYSIS RESULTS

Test Parameters	Test Result	Specifications	Unit	Test Method
Appearance at 25°C	Transparent liquid	Transparent liquid		Visual Inspection
Odour	Typical	Typical		In-House
Colour (APHA)	< 2.5	20.0 Max	APHA	In-house method based on ASTM D1209
Acid Value	0.29	0.50 Max	mg KOH/g	In-house method based on AOCS Cd 3d-63
Saponification Value	208.2	206.0 - 211.0	mg KOH/g	In-house method based on AOCS Cd 3-25
Iodine Value	0.05	1.00 Max	g I ₂ /100g	AOCS Cd 1b-87
Isopropyl Myristate	99.8	98.0 Min	%	In-house method based on USP 43<621 >
Moisture	0.01	0.10 Max	%	USP 43 (Method 921)
Cloud Point	-1.2	0.0 Max	°C	AOCS Cc 6-25
Fatty Acid Composition				

This COA shall not be re-produced except in full, without written approval from Laboratory.



Issued by shipper/ Manufacturer
 CERTIFIED BY
 IOI Acidchem Sdn Bhd

Tan Chee Cheng
 B.APP.SC.(Hons) MMIC
 (M/1853/4211/01)
 ASST. QC MANAGER



昆山市双友日用化工有限公司
KunShan City Shuangyou DailyChemical Co., LTD

质量检验报告单

CERTIFICATE OF QUALITY ANALYSIS

Trade Name/商品名称: K2000 Preservative K2000 防腐剂
INCI 名: DMDM HYDANTOIN/DMDM 乙内酰脲
Batch NO/产品批号: 20210107 Quantity/产品数量: 5000kg
Issued Date/检验日期: 2021/1/7 Standard/检验依据: SY/WI-824-02-(06)
Manufacturing Date/生产日期: 2021/1/6 Package/包装形式: 20kg/桶
Effective Date/有效期至: 2022/1/5

Item 检测项目	Specification 规格	Result 检测结果	Analytical Method 分析方法
Appearance 外观	Colorless to pale yellow liquid 无色至浅黄色液体	Colorless to pale yellow liquid 无色至浅黄色液体	SY/WI-824-02-(06)
Acidity(pH) 酸度	5.0~7.0	5.89	GB/T 9724-2007
DMDMH(%) DMDMH 含量	54~56	55.50	SY/WI-824-02-(06)
Specific Gravity 比重	1.14~1.18	1.165	GB/T 611-88
Free Formaldehyde(%) 游离甲醛	≤0.9	0.43	SY/WI-824-02-(06)
Total Formaldehyde(%) 总甲醛含量	17.0-18.0	17.69	SY/WI-824-02-(06)

Conclusion 结论: Pass 合格

Analyzed by 检验: 肖冬梅

Check by 复核: 赵雪芳



地址: 江苏省昆山市千灯镇萧墅路615号

Address: Qianjiang Town, Kunshan City, Jiangsu Province, China

Postcode: 215300

TEL: 0512-57786356

FAX: 0512-57476182

CERTIFICATE OF ANALYSIS

Product Name : AQUADEST	Molecular Weight : 18.02 g/mol
Catalog No. : A.1078	Batch No. : 1088914
Grade : Laboratory Reagent	Manufacturing Date : Oct 06, 2021
Formula : H ₂ O	Expire Date : Oct, 2023
Cas No. : 7732-18-5	

No.	ITEM TEST	UNITS	SPECIFICATION	RESULTS
1.	Appearance	-	Clear and free of visible particulate	Passes test
2.	Conductivity at 25 °C	uS/cm	≤ 1.0	0.16
3.	pH at 25 °C	-	5.5 - 8.0	7.8
4.	Total Dissolve Solid (TDS)	ppm	≤0.5	0.08
5.	Residu on evaporation	ppm	≤ 1.0	NIL
6.	Total Organic Carbon (TOC)	ppm	≤50	<50
7.	Total Hardness	ppm	≤ 0.1	NIL
8.	Chloride (Cl)	ppm	≤0.5	0.3
9.	Silica	ppm	≤0.5	0.0188
10.	Iron (Fe)	ppm	≤ 0.1	0.0379
11.	Aromatic Hydrocarbon	ppm	Free of Hydrocarbon	NIL

LAMPIRAN 17. Hasil Statistika Uji Mutu Kefir Hasil Fermentasi**a. Uji pH Kefir****ANOVA - pH Kefir**

Cases	Sum of Squares	df	Mean Square	F	p
starter kefir	0.265	2	0.133	42.365	< .001
Residuals	0.019	6	0.003		

Note. Type III Sum of Squares

Descriptives**Descriptives - pH Kefir**

starter kefir	Mean	SD	N
2%	4.253	0.090	3
5%	3.957	0.015	3
7%	3.847	0.032	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
2.519	2.000	6.000	0.161

Post Hoc Tests

Standard

Post Hoc Comparisons - starter kefir

		95% CI for Mean Difference						
		Mean Difference	Lower	Upper	SE	t	p _{tukey}	p _{bonf}
2%	5%	0.297	0.156	0.437	0.046	6.491	0.002	0.002
	7%	0.407	0.266	0.547	0.046	8.898	< .001	< .001
5%	7%	0.110	-0.030	0.250	0.046	2.407	0.115	0.158

Post Hoc Comparisons - starter kefir

Mean Difference	95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
	Lower	Upper				

Note. P-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the tukey method).

b. Uji Kadar Asam Laktat Kefir Susu Kambing**ANOVA****ANOVA - Kadar Asam Laktat**

Cases	Sum of Squares	df	Mean Square	F	p
Starter Kefir	0.034	2	0.017	5.295	0.047
Residuals	0.019	6	0.003		

Note. Type III Sum of Squares

Descriptives**Descriptives - Kadar Asam Laktat**

Starter Kefir	Mean	SD	N
2%	0.717	0.058	3
5%	0.783	0.076	3
7%	0.867	0.021	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
2.333	2.000	6.000	0.178

Post Hoc Tests*Standard***Post Hoc Comparisons - Starter Kefir**

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
2%	5%	-0.067	-0.208	0.075	0.046	-1.443	0.379	0.597
	7%	-0.150	-0.292	-0.008	0.046	-3.248	0.040	0.053
5%	7%	-0.083	-0.225	0.058	0.046	-1.804	0.246	0.364

Note. P-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the tukey method).

c. UJI KEFIR STARTER 2, 5, DAN 7%**ANOVA****ANOVA - Zona Hambat**

Cases	Sum of Squares	df	Mean Square	F	p
Perlakukan	235.456	3	78.485	91.174	< .001
Residuals	6.887	8	0.861		

Note. Type III Sum of Squares

Descriptives**Descriptives - Zona Hambat**

Perlakukan	Mean	SD	N
(+)Klindamisin	20.567	0.666	3
2%	8.667	0.577	3
5%	11.333	0.577	3
7%	14.333	1.528	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
1.999	3.000	8.000	0.193

Post Hoc Tests*Standard***Post Hoc Comparisons - Perlakuan**

		95% CI for Mean Difference		SE	t	p_{tukey}	p_{bonf}
	Mean Difference	Lower	Upper				
((+)Klindamisin)	2%	11.900	9.474	14.326	0.758	15.708	< .001
	5%	9.233	6.807	11.659	0.758	12.188	< .001
	7%	6.233	3.807	8.659	0.758	8.228	< .001
2%	5%	-2.667	-5.093	-0.241	0.758	-3.520	0.032
	7%	-5.667	-8.093	-3.241	0.758	-7.480	< .001
5%	7%	-3.000	-5.426	-0.574	0.758	-3.960	0.018

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

d. Hasil uji antibakteri kefir 5, 10, 15% sebagai zat aktif

ANOVA**ANOVA - zona hambat**

Cases	Sum of Squares	df	Mean Square	F	p
perlakuan	194.250	3	64.750	194.250	< .001
Residuals	2.667	8	0.333		

Note. Type III Sum of Squares

Descriptives**Descriptives - zona hambat**

perlakuan	Mean	SD	N
10%	12.333	0.577	3
15%	14.333	0.577	3
5%	9.333	0.577	3
Klindamisin	20.333	0.577	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
3.442e-28	3.000	8.000	1.000

Post Hoc Tests

Standard

Post Hoc Comparisons - perlakuan

		95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
		Mean Difference					
			Lower	Upper			
10%	15%	-2.000	-3.510	-0.490	0.471	-4.243	0.012
	5%	3.000	1.490	4.510	0.471	6.364	< .001

Post Hoc Comparisons - perlakuan

		Mean Difference	95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
			Lower	Upper				
	Klindamisin	-8.000	-9.510	-6.490	0.471	-16.971	< .001	< .001
15%	5%	5.000	3.490	6.510	0.471	10.607	< .001	< .001
	Klindamisin	-6.000	-7.510	-4.490	0.471	-12.728	< .001	< .001
5%	Klindamisin	-11.000	-12.510	-9.490	0.471	-23.335	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

LAMPIRAN 18. HASIL STATISTIKA OPTIMASI BASIS *MILK CLEANSER*

1. HASIL STATISTIK OPTIMASI UJI PH

ANOVA

ANOVA - Uji pH

Cases	Sum of Squares	df	Mean Square	F	p
Formula Optimasi	0.308	4	0.077	17.548	< .001
Residuals	0.044	10	0.004		

Note. Type III Sum of Squares

Descriptives

Descriptives - Uji pH

Formula Optimasi	Mean	SD	N
F1	7.487	0.023	3
F2	7.127	0.015	3
F3	7.197	0.085	3
F4	7.113	0.025	3
F5	7.350	0.115	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
2.234	4.000	10.000	0.138

Post Hoc Tests*Standard***Post Hoc Comparisons - Formula Optimasi**

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
F1	F2	0.360	0.182	0.538	0.054	6.657	< .001	< .001
	F3	0.290	0.112	0.468	0.054	5.363	0.002	0.003
	F4	0.373	0.195	0.551	0.054	6.904	< .001	< .001
	F5	0.137	-0.041	0.315	0.054	2.527	0.160	0.300
F2	F3	-0.070	-0.248	0.108	0.054	-1.294	0.700	1.000
	F4	0.013	-0.165	0.191	0.054	0.247	0.999	1.000
	F5	-0.223	-0.401	-0.045	0.054	-4.130	0.014	0.020
F3	F4	0.083	-0.095	0.261	0.054	1.541	0.562	1.000
	F5	-0.153	-0.331	0.025	0.054	-2.835	0.101	0.177
F4	F5	-0.237	-0.415	-0.059	0.054	-4.376	0.009	0.014

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

2. UJI DAYA SEBAR (OPTIMASI)**ANOVA****ANOVA - Daya Sebar**

Cases	Sum of Squares	df	Mean Square	F	p
Formula Optimasi	18.847	4	4.712	105.485	< .001
Residuals	0.447	10	0.045		

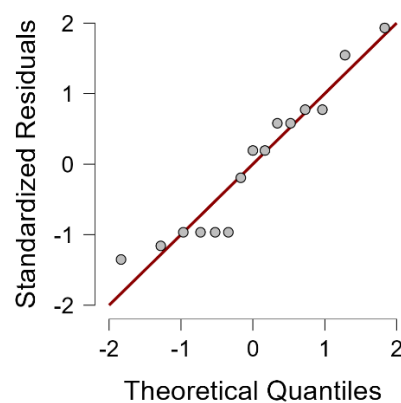
Note. Type III Sum of Squares

Descriptives**Descriptives - Daya Sebar**

Formula Optimasi	Mean	SD	N
F1	5.667	0.153	3
F2	6.900	0.173	3
F3	6.233	0.252	3
F4	4.867	0.153	3
F5	8.167	0.289	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
0.913	4.000	10.000	0.493

Q-Q Plot

Post Hoc Tests*Standard***Post Hoc Comparisons - Formula Optimasi**

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
F1	F2	-1.233	-1.801	-0.665	0.173	-7.147	< .001	< .001
	F3	-0.567	-1.135	0.001	0.173	-3.284	0.051	0.082
	F4	0.800	0.232	1.368	0.173	4.636	0.006	0.009
	F5	-2.500	-3.068	-1.932	0.173	-14.488	< .001	< .001
F2	F3	0.667	0.099	1.235	0.173	3.863	0.021	0.031
	F4	2.033	1.465	2.601	0.173	11.783	< .001	< .001
	F5	-1.267	-1.835	-0.699	0.173	-7.340	< .001	< .001
F3	F4	1.367	0.799	1.935	0.173	7.920	< .001	< .001
	F5	-1.933	-2.501	-1.365	0.173	-11.204	< .001	< .001
F4	F5	-3.300	-3.868	-2.732	0.173	-19.124	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

3. UJI VISKOSITAS (OPTIMASI)

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Formula Optimasi	2.196e+8	4	5.489e+7	117.214	< .001
Residuals	4.683e+6	10	468317.400		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

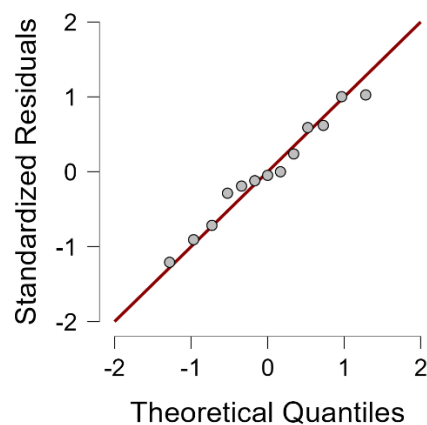
Formula Optimasi	Mean	SD	N
F1	6400.000	499.600	3
F2	3626.667	122.202	3
F3	8626.667	543.078	3
F4	13240.000	1200.000	3
F5	2535.333	584.911	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
1.521	4.000	10.000	0.269

Q-Q Plot



Post Hoc Tests*Standard***Post Hoc Comparisons - Formula Optimasi**

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
F1	F2	2773.333	934.412	4612.255	558.759	4.963	0.004	0.006
	F3	-2226.667	-4065.588	-387.745	558.759	-3.985	0.017	0.026
	F4	-6840.000	-8678.922	-5001.078	558.759	-12.241	< .001	< .001
	F5	3864.667	2025.745	5703.588	558.759	6.917	< .001	< .001
F2	F3	-5000.000	-6838.922	-3161.078	558.759	-8.948	< .001	< .001
	F4	-9613.333	-11452.255	-7774.412	558.759	-17.205	< .001	< .001
	F5	1091.333	-747.588	2930.255	558.759	1.953	0.352	0.793
F3	F4	-4613.333	-6452.255	-2774.412	558.759	-8.256	< .001	< .001
	F5	6091.333	4252.412	7930.255	558.759	10.902	< .001	< .001
F4	F5	10704.667	8865.745	12543.588	558.759	19.158	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

LAMPIRAN 19. HASIL STATISTIKA FORMULASI MILK CLEANSER**a. HASIL UJI pH FORMULASI MILK CLEANSER****ANOVA****ANOVA - uji pH**

Cases	Sum of Squares	df	Mean Square	F	p
Formula	2.147	3	0.716	174.593	< .001
Residuals	0.033	8	0.004		

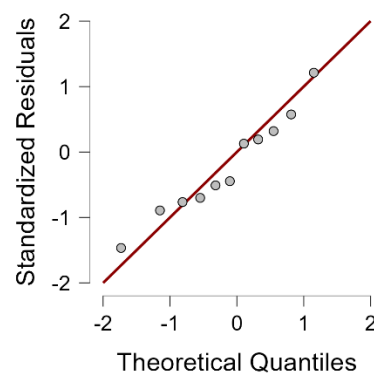
Note. Type III Sum of Squares

Descriptives**Descriptives - uji pH**

Formula	Mean	SD	N
F0	7.127	0.055	3
F1	6.213	0.021	3
F2	6.180	0.036	3
F3	6.077	0.108	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
4.735	3.000	8.000	0.035

Q-Q Plot

Post Hoc Tests

Standard

Post Hoc Comparisons - Formula

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
F0	F1	0.913	0.746	1.081	0.052	17.470	< .001	< .001
	F2	0.947	0.779	1.114	0.052	18.107	< .001	< .001
	F3	1.050	0.883	1.217	0.052	20.084	< .001	< .001
F1	F2	0.033	-0.134	0.201	0.052	0.638	0.917	1.000
	F3	0.137	-0.031	0.304	0.052	2.614	0.115	0.186
F2	F3	0.103	-0.064	0.271	0.052	1.976	0.272	0.501

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

Kruskal-Wallis Test

Kruskal-Wallis Test

Factor	Statistic	df	p
Formula	8.273	3	0.041

b. Hasil Uji Daya Sebar Formula *Milk Cleanser*

ANOVA

ANOVA - Daya Sebar

Cases	Sum of Squares	df	Mean Square	F	p
Formula	0.420	3	0.140	5.419	0.025
Residuals	0.207	8	0.026		

Note. Type III Sum of Squares

Descriptives

Descriptives - Daya Sebar

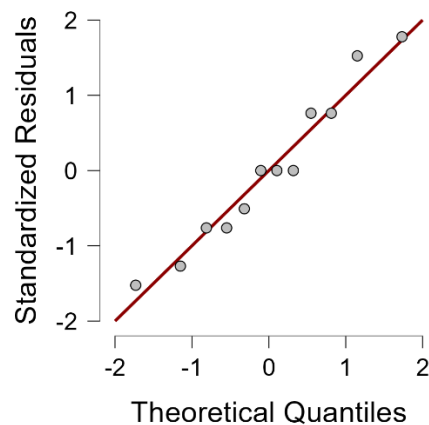
Formula	Mean	SD	N
F0 (-)	6.900	0.100	3
F1 (Kefir 5%)	6.767	0.208	3
F2 (Kefir 10%)	6.600	0.100	3
F3 (Kefir 15%)	6.400	0.200	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
0.932	3.000	8.000	0.469

Q-Q Plot



Post Hoc Tests

Standard

Post Hoc Comparisons - Formula

		95% CI for Mean Difference						
		Mean Difference	Lower	Upper	SE	t	p _{tukey}	p _{bonf}
(F0 (-))	F1 (Kefir 5%)	0.133	-0.287	0.554	0.131	1.016	0.745	1.000

Post Hoc Comparisons - Formula

		Mean Difference	95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
			Lower	Upper				
F1 (Kefir 5%)	F2 (Kefir 10%)	0.300	-0.120	0.720	0.131	2.286	0.181	0.310
	F3 (Kefir 15%)	0.500	0.080	0.920	0.131	3.810	0.022	0.031
	F2 (Kefir 10%)	0.167	-0.254	0.587	0.131	1.270	0.604	1.000
	F3 (Kefir 15%)	0.367	-0.054	0.787	0.131	2.794	0.089	0.140
F2 (Kefir 10%)	F3 (Kefir 15%)	0.200	-0.220	0.620	0.131	1.524	0.468	0.996

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

Kruskal-Wallis Test**Kruskal-Wallis Test**

Factor	Statistic	df	p
Formula	7.582	3	0.055

d. Hasil Statistik Uji Viskositas Formula *Milk Cleanser***ANOVA - Viskositas**

Cases	Sum of Squares	df	Mean Square	F	p
Formula	1.427e+7	3	4.757e+6	20.890	< .001
Residuals	1.822e+6	8	227733.333		

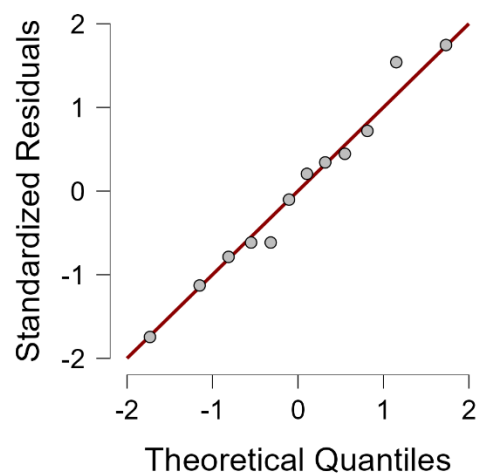
Note. Type III Sum of Squares

Descriptives**Descriptives - Viskositas**

Formula	Mean	SD	N
F0 (-)	3840.000	597.327	3
F1 (Kefir 5%)	5360.000	643.739	3
F2 (Kefir 10%)	6400.000	262.298	3
F3 (Kefir 15%)	6586.667	266.333	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
1.485	3.000	8.000	0.291

Q-Q Plot

Post Hoc Tests*Standard***Post Hoc Comparisons - Formula**

		95% CI for Mean Difference			SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
(F0 (-))	F1 (Kefir 5%)	-1520.000	-2767.776	-272.224	389.644	-3.901	0.019	0.027
	F2 (Kefir 10%)	-2560.000	-3807.776	-1312.224	389.644	-6.570	< .001	0.001
	F3 (Kefir 15%)	-2746.667	-3994.443	-1498.890	389.644	-7.049	< .001	< .001
F1 (Kefir 5%)	F2 (Kefir 10%)	-1040.000	-2287.776	207.776	389.644	-2.669	0.106	0.170
	F3 (Kefir 15%)	-1226.667	-2474.443	21.110	389.644	-3.148	0.054	0.082
F2 (Kefir 10%)	F3 (Kefir 15%)	-186.667	-1434.443	1061.110	389.644	-0.479	0.962	1.000

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

LAMPIRAN 20. HASIL UJI AKTIVITAS ANTIBAKTERI FORMULA *MILK CLEANSER***UJI ANTIBAKTERI FORMULA *MILK CLEANSER*****ANOVA - Zona hambat**

Cases	Sum of Squares	df	Mean Square	F	p
Perlakuan	553.037	4	138.259	472.412	< .001
Residuals	2.927	10	0.293		

Note. Type III Sum of Squares

Descriptives**Descriptives - Zona hambat**

Perlakuan	Mean	SD	N
(+)Klindamisin	20.333	0.577	3
F0	2.900	0.361	3
F1	7.667	0.577	3
F2	12.333	0.577	3
F3	15.667	0.577	3

Assumption Checks**Test for Equality of Variances (Levene's)**

F	df1	df2	p
0.553	4.000	10.000	0.702

Post Hoc Tests*Standard***Post Hoc Comparisons - Perlakuan**

Mean Difference	95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
	Lower	Upper				

Post Hoc Comparisons - Perlakuan

		Mean Difference	95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
			Lower	Upper				
(+)Klindamisin	F0	17.433	15.980	18.887	0.442	39.467	< .001	< .001
	F1	12.667	11.213	14.120	0.442	28.676	< .001	< .001
	F2	8.000	6.546	9.454	0.442	18.111	< .001	< .001
	F3	4.667	3.213	6.120	0.442	10.565	< .001	< .001
F0	F1	-4.767	-6.220	-3.313	0.442	-10.791	< .001	< .001
	F2	-9.433	-10.887	-7.980	0.442	-21.356	< .001	< .001
	F3	-12.767	-14.220	-11.313	0.442	-28.903	< .001	< .001
F1	F2	-4.667	-6.120	-3.213	0.442	-10.565	< .001	< .001
	F3	-8.000	-9.454	-6.546	0.442	-18.111	< .001	< .001
F2	F3	-3.333	-4.787	-1.880	0.442	-7.546	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

Lampiran 21 : Hasil Statistik Uji Stabilitas Frezee thaw Formula Milk Cleanser

1. Stabilitas Uji Ph *Frezee thaw*

<https://drive.google.com/file/d/16DdvCryf2AhjQeYuMVYMIWeYV4qjmARS/view?usp=sharing>



Scan qr code untuk melihat hasil statistik uji stabilitas pH

2. Hasil stabilitas uji daya sebar *Frezee thaw*

<https://drive.google.com/file/d/1NKCOCzwQrKCOPbyfOu47FEB-55hAlf1g/view?usp=sharing>



Scan Barcode QR untuk melihat hasil statistik stabilitas uji daya sebar

3. Hasil Stabilitas Uji Viskositas

<https://drive.google.com/file/d/1YUUpEhMscMdXyyXGh2g2a2PzUKfmvMZM/view?usp=sharing>



Scan Barcode Qr untuk melihat hasil statistik stabilitas uji viskositas