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LAMPIRAN

Lampiran 1. Sertifikat Bakteri *Streptococcus mutans*

ThermoFisher SCIENTIFIC
The world leader in serving science

Thermo Fisher Scientific
Microbiology
12076 Santa Fe Trail Drive
Lenexa, KS 66215
800.255.6730
800.447.5761 fax
www.thermofisher.com

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Certificate of Analysis - Certified Reference Material

Thermo Scientific™ Trademark™
Product Number **R4607001**
Product Name **S. mutans ATCC 25175 PK/5**
Lot Number **155715**
Usage Decision **Accepted (OK)**
Expiration Date **2026-02-03**

This product has been manufactured, processed and packaged in accordance with Quality Systems Regulation, 21 CFR Part 820.
The results were derived from a representative sample of the batch and were obtained at the time of release.
Refer to the enclosed product insert for instructions, intended use, hazard/safety requirements, and storage conditions.

Product Char	Results
Purity	Demonstrates pure growth on applicable media
Viability	Recovered at acceptable level within test period
Passage	3 (Current preserved state)

Microbiological Testing	Results	Specification
>85% Identification on Vitek 2C GP		85 - 100
>95% Identification on MicroSEQ	100	95 - 100
Microscopic Features	Pass	

These tests are performed in accordance with ISO 17025 guidelines.
Thermo Fisher Scientific has determined each loop of this reference material to be sufficiently homogeneous for its intended use.
Individual products are traceable to a recognized culture collection.
Although the Vitek(TM) panel uses many conventional tests, the unique environment of the card, combined with the short incubation period, may produce results that differ from published results obtained by other methods

Lampiran 2. Sertifikat Minyak Atsiri Serai Wangi

Qiandra

CERTIFICATE OF ANALYSIS

Product Name : CITRONELLA

Botanical Name : CYMBOPOGON NARDUS

CAS No. : 10-07-98-001-02

ORIGIN : INDONESIA

PARAMETER	SFESIFICATION	RESULT
Appearance		COMPLIES
Odour	Characteristic Sereh Bumbu	COMPLIES
Colour	Yellow to Red	COMPLIES
Refractive Index 20 °C	1.465 – 1.475	1.469
Sfecific Gravity 25 °C	0.880 – 0.895	0.889
Solubility	Soluble in Alcohol and Oil	Comform to Standard
Citronellal	35% - 55%	37.45%

This report pertains only to the sample taken by the lot . this is indicative and may be vary according to the raw material and climate variation . This is only an illustration of the results of the rewritten analysis, its function is to guarantee the quality of essential oils and describe the purity of essential oils according to their type.

Lampiran 3. Sertifikat Minyak Atsiri Kayu Manis

PT. TAROMANESIA
The Real Essential Oil Fresh From Destillation
Jl. Karanggan Muda Kec Gunung Putri. Kabupaten Bogor, Provinsi Jawa Barat

Certificate of Analysis Sheet

Cinnamonbark Oil – Minyak Kayu Manis
Cinnamonum burmanii

Date : 18 Februari 2025
Lot # : -
CAS no : 8015-91-6
FEMA : 2291
Origin : Indonesia

Product Information
Extraction Method : Steam Destilled
Part Used : Dry Wood
Quality : 100% Pure & Natural
Cultivation : Farmed

Analysis Information

Parameter	Specifications	Result
Appearance	Free Flowing Liquid	Comform to Standard
Color	Clear Yellow	Comform to Standard
Odor	Characteristic Cinnamon Wood Aroma	Comform to Standard
Sfecific Gravity 20 °C	0.884 – 1.180	1.020
Refractive Index 20 °C	1.571 – 1.591	1.612
Optical Rotation	$(-0^0) – (-5^0)$	-3.8^0
Cinnamaldehyde Content	Min 70%	89.54%
Solubility	Soluble in Alcohol and Oil Not soluble in water	Comform to Standard
Fatty Oil	Negative	Negative

Costumer PO : -
Produk Kode# : CNBO180225TTATSR
Manufacturing date : 18 Februari 2025
Best Used : 18 Februari 2027

Note:
This report pertains only to the sample taken by the lot. This is indicative and my be vary according to the raw material and climate variation

Issued by : Quality Control
This computer generated Certificate of Analysis is valid wihout signature

Storage condition:
With Minimum Headspace In a Cool, Dark And Dry Place

**This Data Document is obtained From Supplier and rewritten by Tetesan Atsiri*

Lampiran 4. Ethical Clearance

YAYASAN HARAPAN BUNDA BATAM
INSTITUT KESEHATAN MITRA BUNDA
KOMITE ETIK PENELITIAN
Jl. Seraya No 1 KOTA BATAM Telp/Fax (0778) 429431, website : http:\\ikmb.ac.id
SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No. 284/M/2020

KOMITE ETIK PENELITIAN
INSTITUT KESEHATAN MITRA BUNDA
THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA

SURAT KETERANGAN
ETHICAL APPROVAL
No. 137/K/KEP/IKMB/IX/2025

Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul :
The Research Ethical Committee of Institut Kesehatan Mitra Bunda states hereby that the following proposal :

"Studi Perbandingan Aktivitas Antibakteri dari Berbagai Minyak Atsiri dan Ekstrak Resin Jernang (*Daemonorops draco*) dalam Formulasi Obat Kumur"
"A Comparative Study of The Antibacterial Activity of Various Essential Oils and Jernang (Daemonorops draco) Resin Extract in Mouthwash Formulation"

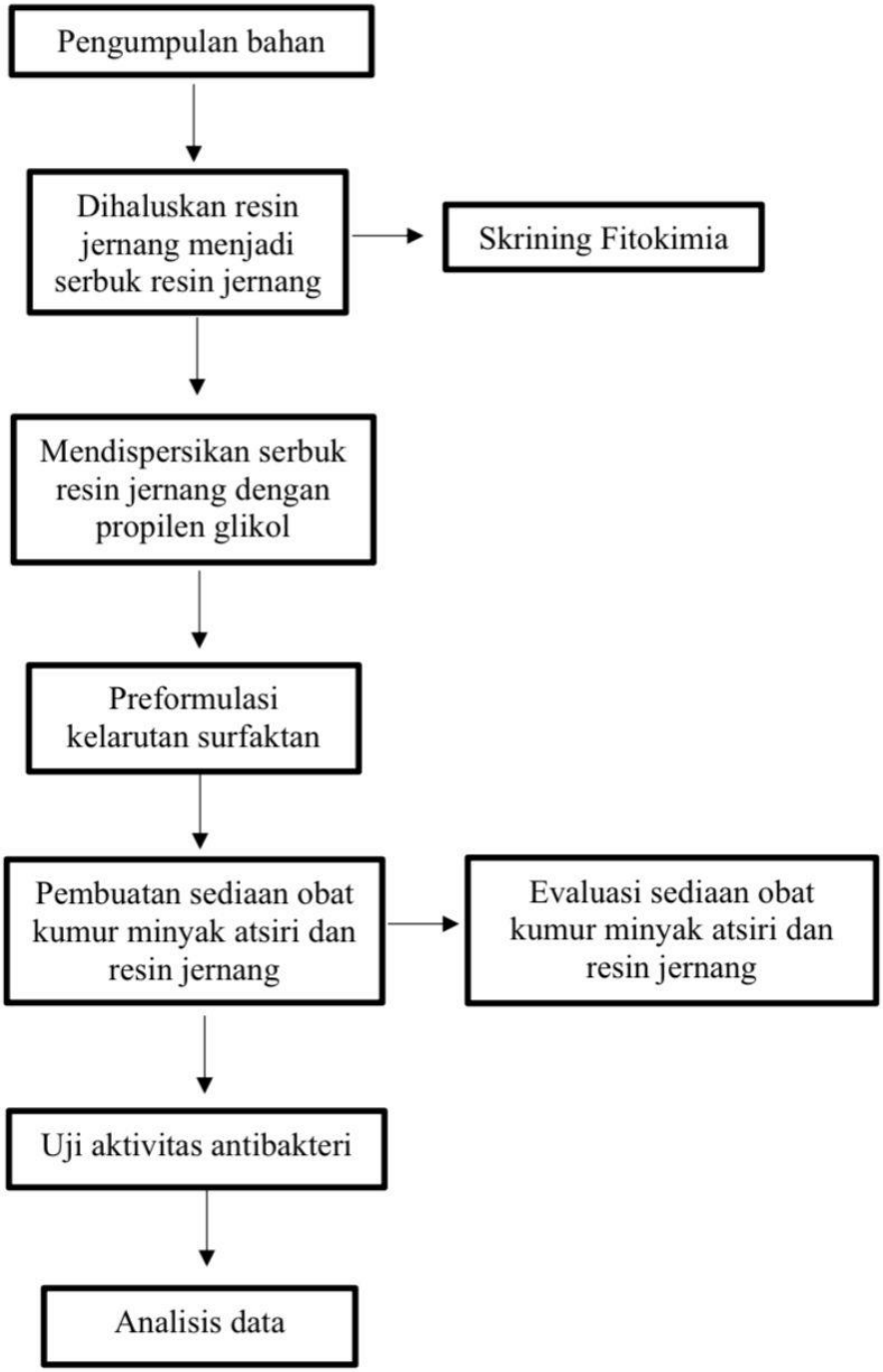
Peneliti Utama *Principal Investigato*	: Deroza Chariesy
Lokasi Penelitian *Research Location*	: Laboratorium Kimia Bahan Alam Institut Kesehatan Mitra Bunda
Waktu Penelitian *Time Schedule*	: Juni – Agustus 2025
Responden/Subjek Penelitian *Respondent/Research Subject*	: 1 Produk

Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan
Has proceeded the ethichal assessment procedure and been approved fot implementation

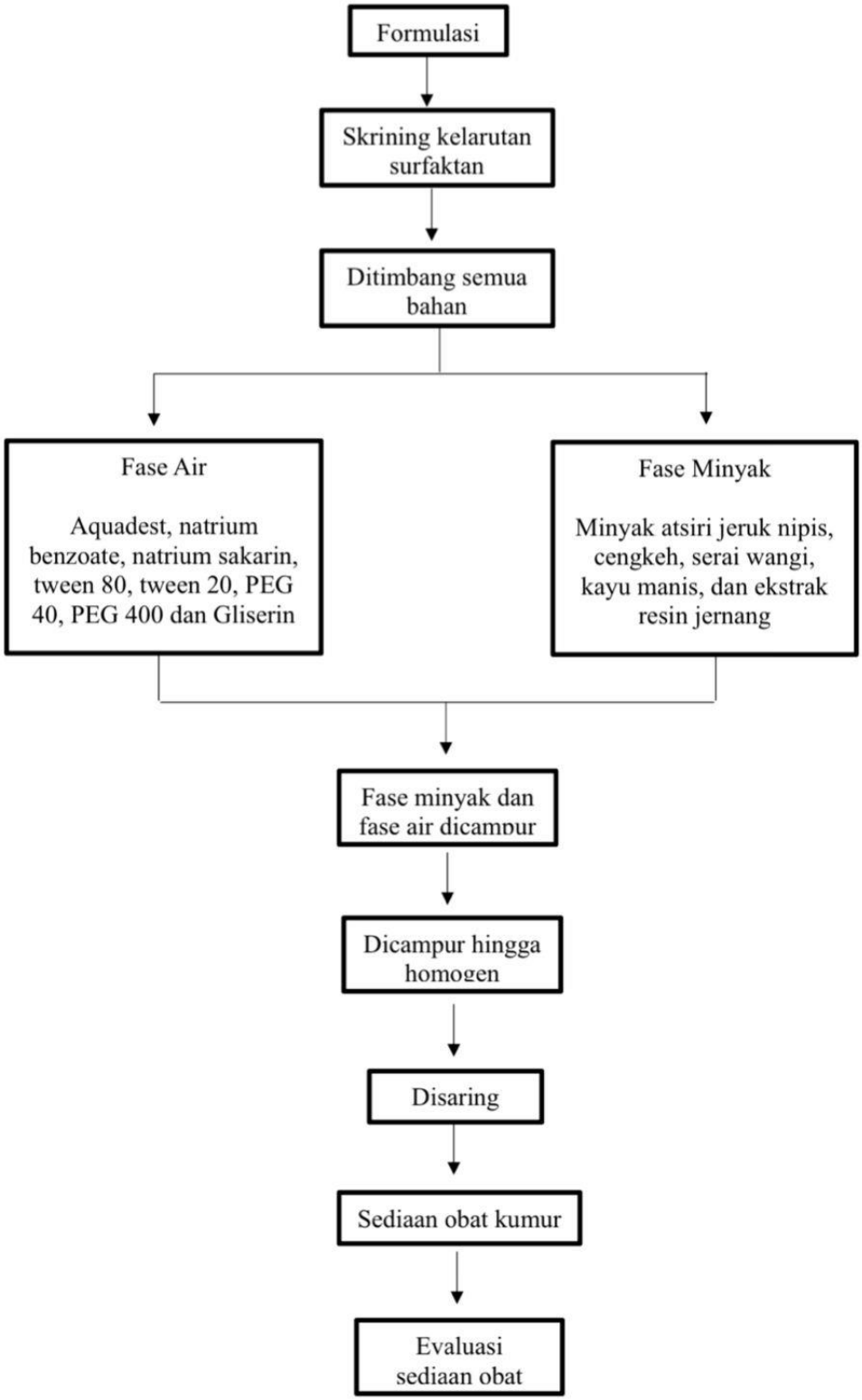
Batam, 15 September 2025
Ketua / *Chairman*,

dr. Ibnu Rushd, M.K.M

Lampiran 5. Skema Alur Penelitian



Lampiran 6. Skema Pembuatan Sediaan Obat Kumur



Lampiran 7. Skema Kerja Pengujian Aktivitas Antibakteri

Lampiran 8. Skrining Fitokimia Resin Jernang

Pemeriksaan	Reagen	Hasil Uji	Gambar
Alkaloid	Pereaksi Mayer	(-)	
Alkaloid	Pereaksi Dragendroff	(-)	
Flavonoid	HCl Pekat, serbuk Mg	(+)	
Tanin	$FeCl_3$	(+)	
Saponin	Aquadest panas dan HCl pekat	(-)	
Steroid	$C_4H_6O_3$ dan H_2SO_4	(-)	
Terpenoid		(+)	

Lampiran 9. Perhitungan Formulasi Sediaan Obat Kumur

1. Formulasi 1 (Obat kumur minyak atsiri serai wangi)

Minyak atsiri serai wangi	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 20	$\frac{4,5}{100}\ x\ 100\ ml = 4,5\ ml$
PEG 40	$\frac{1,5}{100}\ x\ 100\ ml = 1,5\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{84,7}{100}\ x\ 100\ ml = 84,7\ ml$

2. Formulasi 2 (Obat kumur minyak atsiri kayu manis)

Minyak atsiri kayu manis	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 20	$\frac{6}{100}\ x\ 100\ ml = 6\ ml$
PEG 40	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{82,7}{100}\ x\ 100\ ml = 82,7\ ml$

3. Formulasi 3 (Obat kumur minyak atsiri cengkih)

Minyak atsiri cengkih	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 80	$\frac{6}{100}\ x\ 100\ ml = 6\ ml$
PEG 40	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{82,7}{100}\ x\ 100\ ml = 82,7\ ml$

4. Formulasi 4 (Obat kumur minyak atsiri jeruk nipis)

Minyak atsiri jeruk nipis	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 20	$\frac{3,5}{100}\ x\ 100\ ml = 3,5\ ml$
PEG 400	$\frac{3,5}{100}\ x\ 100\ ml = 3,5\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{82,7}{100}\ x\ 100\ ml = 83,7\ ml$

5. Formulasi 5 (Obat kumur serai wangi kombinasi dengan ekstrak resin jernang)

Minyak atsiri serai wangi	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Ekstrak resin jernang	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 20	$\frac{4,5}{100}\ x\ 100\ ml = 4,5\ ml$
PEG 40	$\frac{1,5}{100}\ x\ 100\ ml = 1,5\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{82,7}{100}\ x\ 100\ ml = 82,7\ ml$

6. Formulasi 6 (Obat kumur kayu manis kombinasi dengan ekstrak resin jernang)

Minyak atsiri ksyu manis	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Ekstrak resin jernang	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6,5}{100}\ x\ 100\ ml = 6,5\ ml$
Tween 20	$\frac{6}{100}\ x\ 100\ ml = 6\ ml$
PEG 40	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$

Natrium sakarin	$\frac{0{,}55}{100}\ x\ 100\ ml =\ 0{,}55\ ml$
Aquadest	$\frac{82{,}7}{100}\ x\ 100\ ml = 80{,}7\ ml$

7. Formulasi 7 (Obat kumur cengkih kombinasi dengan ekstrak resin jernang)

Minyak atsiri cengkih	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Ekstrak resin jernang	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6{,}5}{100}\ x\ 100\ ml = 6{,}5\ ml$
Tween 80	$\frac{6}{100}\ x\ 100\ ml = 6\ ml$
PEG 40	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Natrium benzoat	$\frac{0{,}25}{100}\ x\ 100\ ml = 0{,}25\ ml$
Natrium sakarin	$\frac{0{,}55}{100}\ x\ 100\ ml =\ 0{,}55\ ml$
Aquadest	$\frac{82{,}7}{100}\ x\ 100\ ml = 80{,}7\ ml$

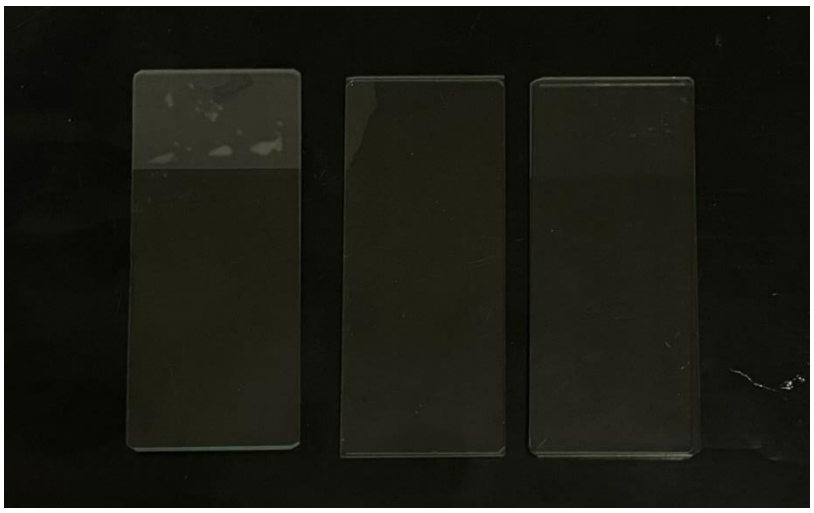
8. Formulasi 8 (Obat kumur jeruk nipis dengan kombinasi ekstrak resin jernang)

Minyak atsiri jeruk nipis	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Ekstrak resin jernang	$\frac{2}{100}\ x\ 100\ ml = 2\ ml$
Gliserin	$\frac{6{,}5}{100}\ x\ 100\ ml = 6{,}5\ ml$

Tween 20	$\frac{3,5}{100}\ x\ 100\ ml = 3,5\ ml$
PEG 400	$\frac{3,5}{100}\ x\ 100\ ml = 3,5\ ml$
Natrium benzoat	$\frac{0,25}{100}\ x\ 100\ ml = 0,25\ ml$
Natrium sakarin	$\frac{0,55}{100}\ x\ 100\ ml =\ 0,55\ ml$
Aquadest	$\frac{82,7}{100}\ x\ 100\ ml = 81,7\ ml$

Lampiran 10. Evaluasi Uji Organoleptis

Lampiran 11. Evaluasi Uji Homogenitas



Lampiran 12. Uji Viskositas

Lampiran 13. Uji pH

Lampiran 14. *Cycling test*

Lampiran 15. Perhitungan Media Agar (NA)

1. $\frac{\varepsilon CP\ x\ \varepsilon\ yang\ dituang\ x\ 28\ gr}{1000}$

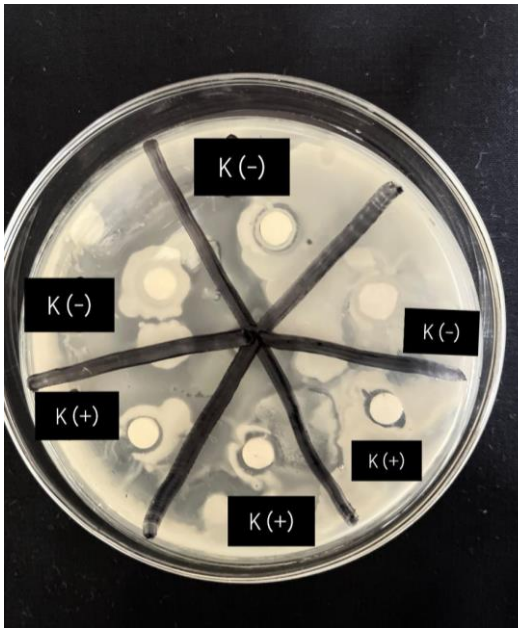
$$\frac{5\ x\ 15\ mlx\ 28\ gr}{1000} = 2{,}1\ gr$$

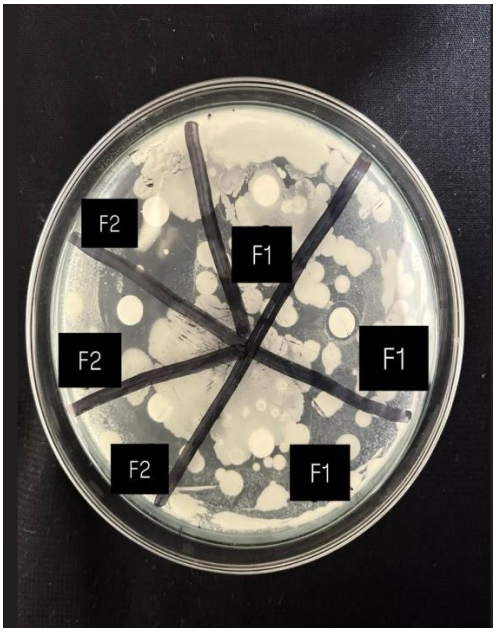
2. Perhitungan aquadest

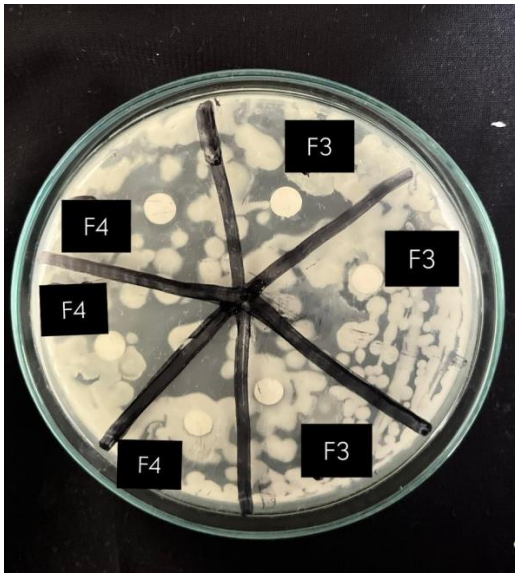
Jumlah yang dituang x jumlah cawan

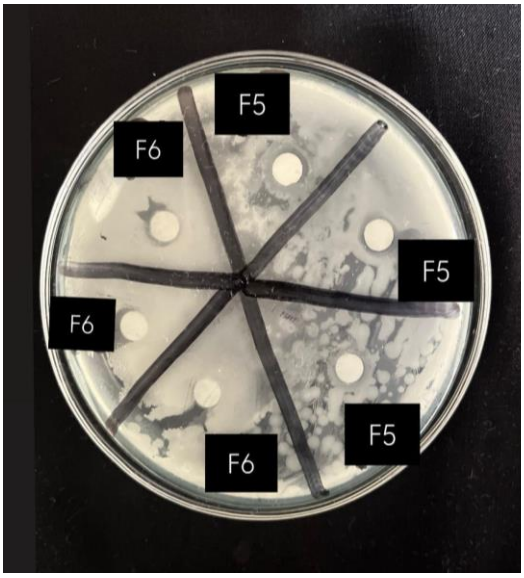
15 ml x 5 = 75 ml

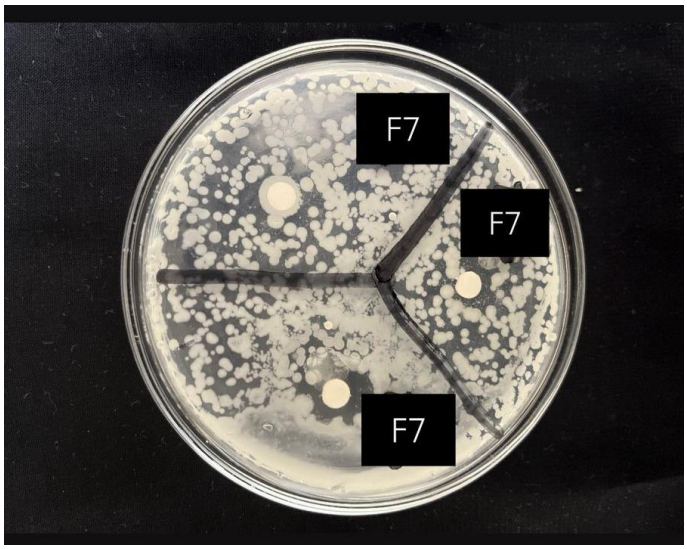
Lampiran 16. Hasil Uji Antibakteri







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Lampiran 17. Uji Data Normalitas pH dan Viskositas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formulasi	Statistic	df	Sig.	Statistic	df	Sig.
pH	Serai Wangi	.328	3	.	.871	3	.298
	Kayu Manis	.175	3	.	1.000	3	1.000
	Cengkeh	.253	3	.	.964	3	.637
	Jeruk Nipis	.253	3	.	.964	3	.637
	Serai Wangi + Jernang	.253	3	.	.964	3	.637
	Kayu Manis + Jernang	.328	3	.	.871	3	.298
	Cengkeh + Jernang	.343	3	.	.842	3	.220
	Jeruk Nipis + Jernang	.321	3	.	.881	3	.328
Viskositas	Serai Wangi	.	3	.	.	3	.
	Kayu Manis	.385	3	.	.750	3	.000
	Cengkeh	.385	3	.	.750	3	.000
	Jeruk Nipis	.385	3	.	.750	3	.000
	Serai Wangi + Jernang	.385	3	.	.750	3	.000
	Kayu Manis + Jernang	.385	3	.	.750	3	.000
	Cengkeh + Jernang	.385	3	.	.750	3	.000
	Jeruk Nipis + Jernang	.385	3	.	.750	3	.000

Lampiran 18. Analisis Data Uji Homogen pH

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	1.879	7	16	.140
	Based on Median	.280	7	16	.953
	Based on Median and with adjusted df	.280	7	8.865	.946
	Based on trimmed mean	1.663	7	16	.189

Lampiran 19. Analisis Data Uji Homogen Viskositas

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	2.286	7	16	.081
	Based on Median	.143	7	16	.993
	Based on Median and with adjusted df	.143	7	14.000	.992
	Based on trimmed mean	1.800	7	16	.156

Lampiran 20. Pengujian ANOVA pH

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.453	7	.350	207.678	.000
Within Groups	.027	16	.002		
Total	2.480	23			

Lampiran 21. Pengujian ANOVA Viskositas

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.292	7	.756	2.592	.054
Within Groups	4.667	16	.292		
Total	9.958	23			

Lampiran 22. Pengujian Post Hoc pH

Post Hoc Tests

Multiple Comparisons

Dependent Variable: pH

Bonferroni

(I) Formulasi	(J) Formulasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Serai Wangi	Kayu Manis	.47333*	.03354	.000	.3479	.5988
	Cengkeh	-.25333*	.03354	.000	-.3788	-.1279
	Jeruk Nipis	.30667*	.03354	.000	.1812	.4321
	Serai Wangi + Jernang	-.18333*	.03354	.001	-.3088	-.0579
	Kayu Manis + Jernang	.35667*	.03354	.000	.2312	.4821
	Cengkeh + Jernang	-.45667*	.03354	.000	-.5821	-.3312
	Jeruk Nipis + Jernang	.32667*	.03354	.000	.2012	.4521
Kayu Manis	Serai Wangi	-.47333*	.03354	.000	-.5988	-.3479
	Cengkeh	-.72667*	.03354	.000	-.8521	-.6012
	Jeruk Nipis	-.16667*	.03354	.004	-.2921	-.0412
	Serai Wangi + Jernang	-.65667*	.03354	.000	-.7821	-.5312
	Kayu Manis + Jernang	-.11667	.03354	.087	-.2421	.0088
	Cengkeh + Jernang	-.93000*	.03354	.000	-1.0554	-.8046
	Jeruk Nipis + Jernang	-.14667*	.03354	.013	-.2721	-.0212
Cengkeh	Serai Wangi	.25333*	.03354	.000	.1279	.3788
	Kayu Manis	.72667*	.03354	.000	.6012	.8521
	Jeruk Nipis	.56000*	.03354	.000	.4346	.6854
	Serai Wangi + Jernang	.07000	.03354	1.000	-.0554	.1954
	Kayu Manis + Jernang	.61000*	.03354	.000	.4846	.7354
	Cengkeh + Jernang	-.20333*	.03354	.000	-.3288	-.0779
	Jeruk Nipis + Jernang	.58000*	.03354	.000	.4546	.7054
Jeruk Nipis	Serai Wangi	-.30667*	.03354	.000	-.4321	-.1812
	Kayu Manis	.16667*	.03354	.004	.0412	.2921
	Cengkeh	-.56000*	.03354	.000	-.6854	-.4346
	Serai Wangi + Jernang	-.49000*	.03354	.000	-.6154	-.3646
	Kayu Manis + Jernang	.05000	.03354	1.000	-.0754	.1754
	Cengkeh + Jernang	-.76333*	.03354	.000	-.8888	-.6379
	Jeruk Nipis + Jernang	.02000	.03354	1.000	-.1054	.1454
Serai Wangi + Jernang	Serai Wangi	.18333*	.03354	.001	.0579	.3088
	Kayu Manis	.65667*	.03354	.000	.5312	.7821
	Cengkeh	-.07000	.03354	1.000	-.1954	.0554
	Jeruk Nipis	.49000*	.03354	.000	.3646	.6154
	Kayu Manis + Jernang	.54000*	.03354	.000	.4146	.6654
	Cengkeh + Jernang	-.27333*	.03354	.000	-.3988	-.1479
	Jeruk Nipis + Jernang	.51000*	.03354	.000	.3846	.6354

Kayu Manis + Jernang	Serai Wangi	-.35667*	.03354	.000	-.4821	-.2312
	Kayu Manis	.11667	.03354	.087	-.0088	.2421
	Cengkeh	-.61000*	.03354	.000	-.7354	-.4846
	Jeruk Nipis	-.05000	.03354	1.000	-.1754	.0754
	Serai Wangi + Jernang	-.54000*	.03354	.000	-.6654	-.4146
	Cengkeh + Jernang	-.81333*	.03354	.000	-.9388	-.6879
	Jeruk Nipis + Jernang	-.03000	.03354	1.000	-.1554	.0954
Cengkeh + Jernang	Serai Wangi	.45667*	.03354	.000	.3312	.5821
	Kayu Manis	.93000*	.03354	.000	.8046	1.0554
	Cengkeh	.20333*	.03354	.000	.0779	.3288
	Jeruk Nipis	.76333*	.03354	.000	.6379	.8888
	Serai Wangi + Jernang	.27333*	.03354	.000	.1479	.3988
	Kayu Manis + Jernang	.81333*	.03354	.000	.6879	.9388
	Jeruk Nipis + Jernang	.78333*	.03354	.000	.6579	.9088
Jeruk Nipis + Jernang	Serai Wangi	-.32667*	.03354	.000	-.4521	-.2012
	Kayu Manis	.14667*	.03354	.013	.0212	.2721
	Cengkeh	-.58000*	.03354	.000	-.7054	-.4546
	Jeruk Nipis	-.02000	.03354	1.000	-.1454	.1054
	Serai Wangi + Jernang	-.51000*	.03354	.000	-.6354	-.3846
	Kayu Manis + Jernang	.03000	.03354	1.000	-.0954	.1554
	Cengkeh + Jernang	-.78333*	.03354	.000	-.9088	-.6579

Lampiran 23. Pengujian Post Hoc Viskositas

Post Hoc Tests

Multiple Comparisons

Dependent Variable: pH

Bonferroni

(I) Formulasi	(J) Formulasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Serai Wangi	Kayu Manis	.47333*	.03354	.000	.3479	.5988
	Cengkeh	-.25333*	.03354	.000	-.3788	-.1279
	Jeruk Nipis	.30667*	.03354	.000	.1812	.4321
	Serai Wangi + Jernang	-.18333*	.03354	.001	-.3088	-.0579
	Kayu Manis + Jernang	.35667*	.03354	.000	.2312	.4821
	Cengkeh + Jernang	-.45667*	.03354	.000	-.5821	-.3312
	Jeruk Nipis + Jernang	.32667*	.03354	.000	.2012	.4521
Kayu Manis	Serai Wangi	-.47333*	.03354	.000	-.5988	-.3479
	Cengkeh	-.72667*	.03354	.000	-.8521	-.6012
	Jeruk Nipis	-.16667*	.03354	.004	-.2921	-.0412
	Serai Wangi + Jernang	-.65667*	.03354	.000	-.7821	-.5312
	Kayu Manis + Jernang	-.11667	.03354	.087	-.2421	.0088
	Cengkeh + Jernang	-.93000*	.03354	.000	-1.0554	-.8046
	Jeruk Nipis + Jernang	-.14667*	.03354	.013	-.2721	-.0212
Cengkeh	Serai Wangi	.25333*	.03354	.000	.1279	.3788
	Kayu Manis	.72667*	.03354	.000	.6012	.8521
	Jeruk Nipis	.56000*	.03354	.000	.4346	.6854
	Serai Wangi + Jernang	.07000	.03354	1.000	-.0554	.1954
	Kayu Manis + Jernang	.61000*	.03354	.000	.4846	.7354
	Cengkeh + Jernang	-.20333*	.03354	.000	-.3288	-.0779
	Jeruk Nipis + Jernang	.58000*	.03354	.000	.4546	.7054
Jeruk Nipis	Serai Wangi	-.30667*	.03354	.000	-.4321	-.1812
	Kayu Manis	.16667*	.03354	.004	.0412	.2921
	Cengkeh	-.56000*	.03354	.000	-.6854	-.4346
	Serai Wangi + Jernang	-.49000*	.03354	.000	-.6154	-.3646
	Kayu Manis + Jernang	.05000	.03354	1.000	-.0754	.1754
	Cengkeh + Jernang	-.76333*	.03354	.000	-.8888	-.6379
	Jeruk Nipis + Jernang	.02000	.03354	1.000	-.1054	.1454
Serai Wangi + Jernang	Serai Wangi	.18333*	.03354	.001	.0579	.3088
	Kayu Manis	.65667*	.03354	.000	.5312	.7821
	Cengkeh	-.07000	.03354	1.000	-.1954	.0554
	Jeruk Nipis	.49000*	.03354	.000	.3646	.6154
	Kayu Manis + Jernang	.54000*	.03354	.000	.4146	.6654
	Cengkeh + Jernang	-.27333*	.03354	.000	-.3988	-.1479
	Jeruk Nipis + Jernang	.51000*	.03354	.000	.3846	.6354

Kayu Manis + Jernang	Serai Wangi	-.35667*	.03354	.000	-.4821	-.2312
	Kayu Manis	.11667	.03354	.087	-.0088	.2421
	Cengkeh	-.61000*	.03354	.000	-.7354	-.4846
	Jeruk Nipis	-.05000	.03354	1.000	-.1754	.0754
	Serai Wangi + Jernang	-.54000*	.03354	.000	-.6654	-.4146
	Cengkeh + Jernang	-.81333*	.03354	.000	-.9388	-.6879
	Jeruk Nipis + Jernang	-.03000	.03354	1.000	-.1554	.0954
Cengkeh + Jernang	Serai Wangi	.45667*	.03354	.000	.3312	.5821
	Kayu Manis	.93000*	.03354	.000	.8046	1.0554
	Cengkeh	.20333*	.03354	.000	.0779	.3288
	Jeruk Nipis	.76333*	.03354	.000	.6379	.8888
	Serai Wangi + Jernang	.27333*	.03354	.000	.1479	.3988
	Kayu Manis + Jernang	.81333*	.03354	.000	.6879	.9388
	Jeruk Nipis + Jernang	.78333*	.03354	.000	.6579	.9088
Jeruk Nipis + Jernang	Serai Wangi	-.32667*	.03354	.000	-.4521	-.2012
	Kayu Manis	.14667*	.03354	.013	.0212	.2721
	Cengkeh	-.58000*	.03354	.000	-.7054	-.4546
	Jeruk Nipis	-.02000	.03354	1.000	-.1454	.1054
	Serai Wangi + Jernang	-.51000*	.03354	.000	-.6354	-.3846
	Kayu Manis + Jernang	.03000	.03354	1.000	-.0954	.1554
	Cengkeh + Jernang	-.78333*	.03354	.000	-.9088	-.6579

Lampiran 24. Analisis Data Normalitas *Cycling Test* pH dsn Viskositas

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formulasi	Statistic	df	Sig.	Statistic	df	Sig.
pH_Sebelum	Serai Wangi	.328	3	.	.871	3	.298
	Kayu Manis	.175	3	.	1.000	3	1.000
	Cengkeh	.253	3	.	.964	3	.637
	Jeruk Nipis	.253	3	.	.964	3	.637
	Serai Wangi + Jernang	.253	3	.	.964	3	.637
	Kayu Manis + Jernang	.328	3	.	.871	3	.298
	Cengkeh + Jernang	.343	3	.	.842	3	.220
	Jeruk Nipis + Jernang	.321	3	.	.881	3	.328
pH_Sesudah	Serai Wangi	.292	3	.	.923	3	.463
	Kayu Manis	.219	3	.	.987	3	.780
	Cengkeh	.253	3	.	.964	3	.637
	Jeruk Nipis	.232	3	.	.980	3	.726
	Serai Wangi + Jernang	.276	3	.	.942	3	.537
	Kayu Manis + Jernang	.280	3	.	.938	3	.520
	Cengkeh + Jernang	.276	3	.	.942	3	.537
	Jeruk Nipis + Jernang	.269	3	.	.949	3	.567
Viskositas_Sebelum	Serai Wangi	.	3	.	.	3	.
	Kayu Manis	.385	3	.	.750	3	.000
	Cengkeh	.385	3	.	.750	3	.000
	Jeruk Nipis	.385	3	.	.750	3	.000
	Serai Wangi + Jernang	.385	3	.	.750	3	.000
	Kayu Manis + Jernang	.385	3	.	.750	3	.000
	Cengkeh + Jernang	.385	3	.	.750	3	.000
	Jeruk Nipis + Jernang	.385	3	.	.750	3	.000
Viskositas_Sesudah	Serai Wangi	.	3	.	.	3	.
	Kayu Manis	.385	3	.	.750	3	.000
	Cengkeh	.385	3	.	.750	3	.000
	Jeruk Nipis	.385	3	.	.750	3	.000
	Serai Wangi + Jernang	.	3	.	.	3	.
	Kayu Manis + Jernang	.385	3	.	.750	3	.000
	Cengkeh + Jernang	.	3	.	.	3	.
	Jeruk Nipis + Jernang	.385	3	.	.750	3	.000

Lampiran 25. Hasil Uji Paired Sample Test

Paired Samples Test

Formulasi			Paired Differences					t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Serai Wangi	Pair 1	pH_Sebelum - pH_Sesudah	.13000	.01000	.00577	.10516	.15484	22.517	2	.002
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.33333	.57735	.33333	-1.10088	1.76755	1.000	2	.423
Kayu Manis	Pair 1	pH_Sebelum - pH_Sesudah	.11333	.03055	.01764	.03744	.18922	6.425	2	.023
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	-.33333	.57735	.33333	-1.76755	1.10088	-1.000	2	.423
Cengkeh	Pair 1	pH_Sebelum - pH_Sesudah	.12000	.02646	.01528	.05428	.18572	7.856	2	.016
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.66667	.57735	.33333	-.76755	2.10088	2.000	2	.184
Jeruk Nipis	Pair 1	pH_Sebelum - pH_Sesudah	.11333	.03055	.01764	.03744	.18922	6.425	2	.023
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.33333	1.15470	.66667	-2.53510	3.20177	.500	2	.667
Serai Wangi + Jernang	Pair 1	pH_Sebelum - pH_Sesudah	.15667	.04933	.02848	.03413	.27921	5.501	2	.031
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.33333	.57735	.33333	-1.10088	1.76755	1.000	2	.423
Kayu Manis + Jernang	Pair 1	pH_Sebelum - pH_Sesudah	.13000	.03000	.01732	.05548	.20452	7.506	2	.017
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	-.66667	.57735	.33333	-2.10088	.76755	-2.000	2	.184
Cengkeh + Jernang	Pair 1	pH_Sebelum - pH_Sesudah	.13000	.04583	.02646	.01616	.24384	4.914	2	.039
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.66667	.57735	.33333	-.76755	2.10088	2.000	2	.184
Jeruk Nipis + Jernang	Pair 1	pH_Sebelum - pH_Sesudah	.13000	.01000	.00577	.10516	.15484	22.517	2	.002
	Pair 2	Viskositas_Sebelum - Viskositas_Sesudah	.33333	.57735	.33333	-1.10088	1.76755	1.000	2	.423

Lampiran 26. Lampiran Desain Kotak Minyak Serai Wangi

Lampiran 27. Lampiran Desain Kotak Minyak Kayu Manis

Lampiran 28. Lampiran Desain Kotak Minyak Cengkeh

Lampiran 29. Lampiran Desain Kotak Minyak Jeruk Nipis

Lampiran 30. Lampiran Desain Kotak Minyak Serai Wangi + Jernang

Lampiran 31. Lampiran Desain Kotak Minyak Kayu Manis + Jernang

Lampiran 32. Lampiran Desain Kotak Minyak Cengkeh + Jernang

Lampiran 33. Lampiran Desain Kotak Minyak Jeruk Nipis + Jernang

Lampiran 34. Lampiran Desain Etiket