

LAMPIRAN

Lampiran 1. Hasil Determinasi



DIREKTORAT PENGELOLAAN KOLEKSI ILMIAH
 JL. Raya Jakarta - Bogor KM 46, Cibinong Science Center, Cibinong 16911, Jawa Barat
 Laman: www.brin.go.id

Nomor : B-1650/IV/DI.05.07/6/2022 Cibinong, 6 Juni 2022
 Lampiran : -
 Perihal : Hasil Identifikasi/Determinasi Tumbuhan

Yth.
 Bpk./Ibu/Sdr(i). **Delya Ramadhanti**
 NIM : 20180311126
 Universitas Esa Unggul

Bersama ini kami sampaikan hasil identifikasi/determinasi tumbuhan yang Saudara kirimkan ke "Herbarium Bogoriense", Direktorat Pengelolaan Koleksi Ilmiah BRIN Cibinong, adalah sebagai berikut :

No.	No. Kol.	Jenis	Suku
1.	Daun Rosmary	<i>Rosmarinus officinalis</i> Linn.	Lamiaceae

Demikian, semoga berguna bagi Saudara.

Pt. Direktorat Pengelolaan Koleksi Ilmiah,
 Badan Riset dan Inovasi Nasional



Dr. Ir. Hendro Wicaksono, M.Sc., Eng

Lampiran 2. Hasil Pembuatan Ekstrak Etil Asetat Daun Rosemary



Simplisia daun rosemary



Perendaman simplisia dan penyaringan

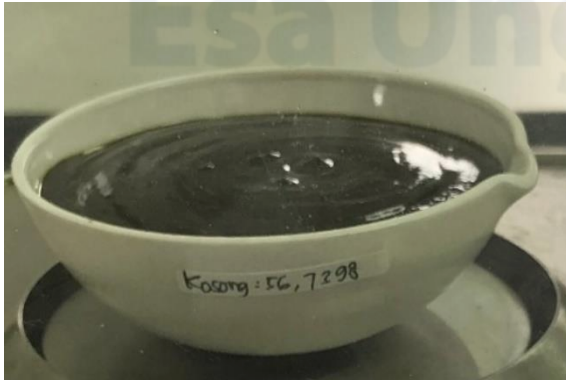


Filtrat dipekatkan menggunakan rotary evaporator



Filtrat dipekatkan kembali menggunakan water bath

(Lanjutan)



Ekstrak kental etil asetat daun rosemary




Ekstrak kering etil asetat daun rosemary



Ekstrak kering yang sudah dihaluskan

Lampiran 3. Hasil Perhitungan Rendemen Ekstrak

DATA PENELITIAN	
Tanggal	20 Juni 2022
Paraf pembimbing	

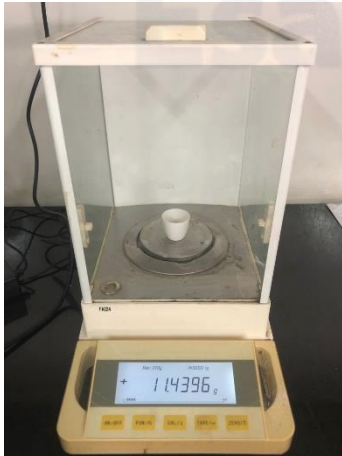
Hasil ekstrak Kering = 516 gram
Simplisia = 6 Kg

Rendemen ekstrak $\Rightarrow \frac{516 \text{ gram}}{6.000 \text{ gram}} \times 100\%$
 $\Rightarrow 8,6\%$

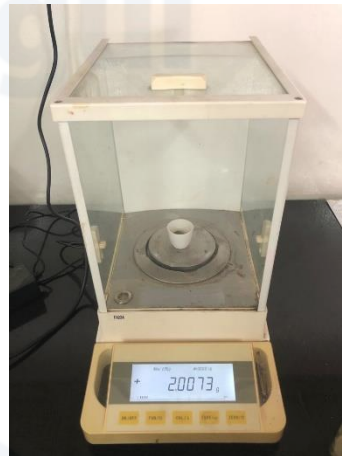
Universitas
Esa Unggul

PRODI FARMASI UED-LOGBOOK

Lampiran 4. Hasil Penetapan Susut Pengerinan Ekstrak



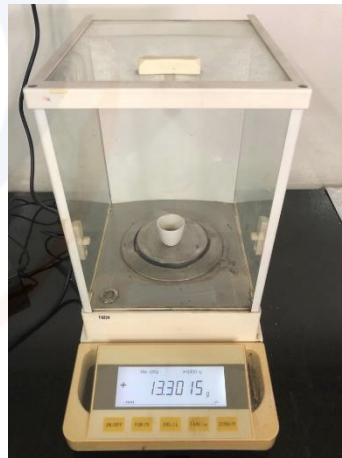
Berat cawan kosong



Berat ekstrak awal



Krus dimasukkan ke dalam oven



Krus dan sampel akhir

* Penetapan susut pengerinan

- Bobot krus kosong = 11,4396 gram
- Bobot awal ekstrak = 2,0073 gram
- Bobot krus (+) ekstrak akhir = 13,3015 gram

$$\begin{array}{r} \text{Bobot krus} = 11,4396 \text{ gram} \\ \underline{\hspace{1.5cm}} \\ 1,8619 \text{ gram} \end{array}$$

$$\% \text{ susut pengerinan} = \frac{2,0073 - 1,8619}{2,0073} \times 100\%$$

$$= 7,2\%$$

Perhitungan susut pengerinan ekstrak

Lampiran 5. Hasil Skrining Fitokimia



Alkaloid



Tannin



Flavonoid

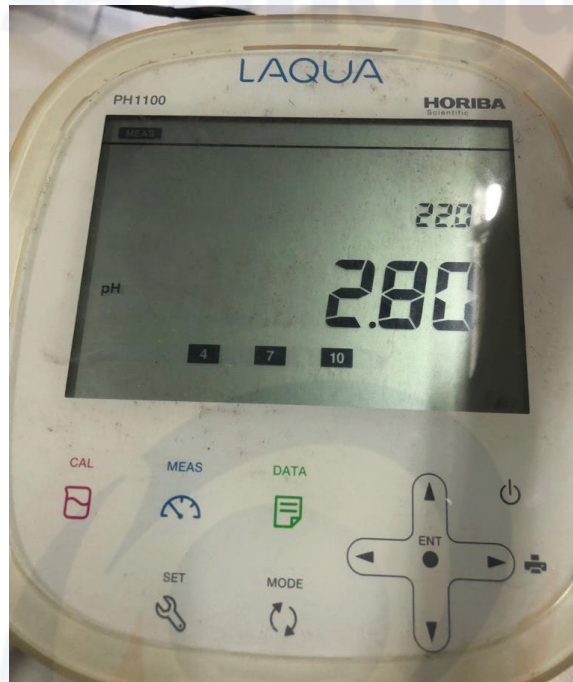


Saponin



Triterpenoid

Lampiran 6. Hasil Nilai pH Ekstrak



Lampiran 7. *Certificate of Analysis* Bahan Yang Digunakan
Kalsium Karbonat



LABH AGRO TRADECOM

Date: 04/10/2020

CERTIFICATE OF ANALYSIS

Product Name Calcium Carbonate

BATCH NO. LAT1004/2020

Mfg. Date. 04/10/2020

Exp. Date. 03/10/2025

[A] Chemical Properties: -

Sr. No	Tests	Unit	Spec. Test Value
1	Appearance	-	White
2	Calcium Carbonate (CaCO ₃)	96% Min	96.47
3	Magnesium Carbonate (MgCO ₃)	%	1.3
4	CaO	%	54.43
5	MgO	%	0.28
6	Iron (Fe ₂ O ₃)	%	0.009
7	pH(Of 10% Solution)	%	8
8	Brightness	%	96
9	Bulk Density (g/100g)	0.800 to 0.900	0.84

[B] Physical Properties: -

Sr. No	Tests	Unit	Spec. Test Value
1	Particle Size		20 micron
2	Tope Cut		Round

For LABH AGRO TRADECOM

HEAD QA

Natrium Lauril Sulfat

(Lanjutan)



Certificate of Analysis

Product Name/Grade:

Sodium Laureth Sulfate / SLES 70%

Product Specifications/Analysis

Parameter	Specifications/Content
Appearance	White to yellowish paste
Odor	No Strong Odors
Active matter, %	70±2
Unulfated matter, %(relative to 100% active matter)	Max2.0
Sodium sulfate, % (relative to 100% active matter)	max1.5
pH value (1% a. m.)	7.0~9.0
Color, Hazen (5% a. m.)	max20
Conclusion	Approved



CAMACHEM (Part of CAMAL Group), 3F Jinlong East Beijing Station Road
Chaoyang District, Beijing, China
www.camachem.com

Gliserin

(Lanjutan)

wilmar PT. WILMAR NABATI INDONESIA **KAN**
 FWINA-QC-10-011 Quality Control Department Kemahasiswaan Nasional
LEF-10N

Date : 24/February/2022

CERTIFICATE OF ANALYSIS

Product : REFINED GLYCERINE 99.7%
 Manufactured Date : FEBRUARY 23, 2022
 Best Before : FEBRUARY 23, 2023
 Date of Received : FEBRUARY 23, 2022
 Date of Analysis : FEBRUARY 23, 2022
 Lot No : G220223-5W

Parameter	Unit	Result	Specification	Test Method
Appearance (*)		Transparent	Transparent	Visual
Identification A (IR)		Conform	Conform	USP 43 : 2020 (197-F)
Identification B (*)				
- Dithyane Glycol	%	<0.10	0.1 max	USP 43 : 2020 (P.1967)
- Ethylene Glycol	%	<0.10	0.1 max	USP 43 : 2020 (P.1967)
Identification C (GC)		Conform	Conform	USP 43 : 2020 (P.1967)
Glycerine Content	%	99.8	99.7 min	USP 43 : 2020 (221)
Chloride	ppm	<10	10 max	USP 43 : 2020 (221)
Sulfate	ppm	<20	20 max	USP 43 : 2020 (281)
Residue on Ignition	%	0.002	0.01 max	USP 43 : 2020 (281)
Related Compounds				
Chlorinated Compounds (*)	ppm	<30	30 max	USP 43 : 2020 (P.1968)
Color (mL FeCl3 *)		<0.4	0.4 max	USP 43 : 2020 (P.1965)
Specific Gravity @ 25		1.2614	1.2612 min	USP 43 : 2020 (841)
Moisture Content	%	0.10	0.3 max	USP 43 : 2020 (821)
Color (APHA *)		5	10 max	AQCS Ea 9-65
Heavy Metal as Pb	ppm	< 5	5 max	USP 41 : 2018 (231)

Remark :
 (*) not accredited parameters

The results of these tests relate only to the sample(s) submitted

* Certified Correct
 24/02/2022
 Riko Juliant
 QC Head Central Lab

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Page 1 Of 1
 Factory :
 J. Kapten Dames Sugondo No. 05
 Gresik - 61124, East Java, Indonesia
 Tel : +6231-3992101 Fax : +6231-3279822

(Lanjutan)

Metil Selulosa

spectrum
chemicals & laboratory products

Certificate Of Analysis

Item Number	ME136	Lot Number	1BF0093
Item	Methylcellulose, 400 cP, USP		
CAS Number	9004-67-5		
Molecular formula		Molecular Weight	
Test	Specification min max	Result	
ASSAY (as METHOXY GROUPS, -OCH ₃)	26.0 - 33.0 %	29.50%	
VISCOSITY	320 - 480 mPa.s	370 mPa.s	
LOSS ON DRYING	5.00%	2.60%	
RESIDUE ON IGNITION	1.50%	0.50%	
HEAVY METALS (as Pb)	20 PPM	<20 ppm	
pH	5.0 - 8.0	7.5	
IDENTIFICATION	TO PASS TEST	PASSES TEST	
RETEST DATE		17-May-19	
RESIDUAL SOLVENTS	TO PASS TEST	NO RESIDUAL SOLVENTS USED	
APPEARANCE		OFF-WHITE POWDER	
MANUFACTURE DATE		18-May-24	

RESIDUAL SOLVENTS: USP, Chapter 467 limits the residual solvent content of a drug product to the permitted daily exposure (PDE) level given in that chapter. This Spectrum Certificate of Analysis reports any residual solvents that are likely to be present in the material as a result of manufacturing and/or processing. Residual solvents of Class 1 are identified and quantified when present in the material. Residual solvents of Class 2 or Class 3 are identified and the maximum limit is reported unless Class 2 solvents are present at levels greater than Option 1 limits or Class 3 solvents are present at levels greater than 0.5%. It is the responsibility of the producer of a finished dosage form to ensure that the aggregate residual solvent content meets applicable requirements set forth in USP, Chapter 467.

Spectrum Chemical Mfg Corp
14422 South San Pedro Street
Gardena, 90248 CA

Certificate of Analysis Results Certified By:



Adan Hernandez
Quality Control Manager
Spectrum Chemicals & Laboratory Products

(Lanjutan)


Natrium Sakarin

CERTIFICATE OF ANALYSIS
 “ SODIUM SACHARIN”

Items	Specification	Results
Appearance	Colorless crystal	Conforms
Assay	≥99 %	99.66%
Water (dried weightlessness)%	13% ~ 15%	14.02%
Melting point	226-230℃	228.30℃
Heavy metals	≤10ppm	2.0ppm
Arsenic salt	≤2ppm	1.0ppm
Mesh size	20-40	Conforms

Checker	Xu Dong	Rechecker	Lu Xiaoping	Approval	Du Yi
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Conclusion The Quality of the above said is in conformity with BP1998 standard.
 COA Issuer Quality Control Team-Technology Department
 of Hefei TNJ Chemical Industry Co.,Ltd.



(Lanjutan)

Titanium Dioksida

**ARROW FINE CHEMICALS**

Plot No. G-1023, Road 1-A, Kishan Gate, Lodhika G.I.D.C.,
Kalawad Road, Metoda. Dist. : Rajkot - 360 021.

Phone : +91 - 2827 - 287878
Fax : +91 - 2827 - 287178
e-mail : info@arrowfinechemicals.com
Website : www.arrowfinechemicals.com

Certificate of Analysis

Specification of Titanium Dioxide - Rutile Grade

Sr No.	Characteristics	Specifications
1	Molecular Formula	TiO ₂
2	Mol Wt	79.87
3	Description	White powder
4	TiO ₂ content (%)	98 min
5	Whiteness	> 97%
6	Reducing strength	180 min
7	LOI (%)	0.5 max
8	Oil absorption (ml)	20 max
9	Rutile content	97 % min

For any further clarification in this regards please do feel free to contact us at any point of time at info@arrowfinechemicals.com.

Assuring you great attention at all times.

For Arrow Fine Chemicals

Quality Assurance Department

** Note : This is a computer generated report hence not needed to sign.





An ISO 9001 : 2008 Company

(Lanjutan)

Metil Paraben

CIN No: U24110TG1978PTC002255
GSTIN No. : 36AACCS8670F1Z5

SALICYLATES AND CHEMICALS
PRIVATE LIMITED

CERTIFICATE OF ANALYSIS

Product	SALIGIN MP		
Chemical Name	METHYL PARABEN METHYL HYDROXY BENZOATE BP		
Batch / Lot No.	336/MP/1019	A.R. No.	19MP1608
Mfg. Date	OCT, 2019	Total Batch Qty.	1000 KGS
Exp. Date	SEP, 2024	Dispatch / Sample Qty.	1000 KGS

TEST	SPECIFICATIONS	RESULTS
Appearance	White or almost white, crystalline powder, or colourless crystals.	Complies
Solubility	Very slightly soluble in water, freely soluble in ethanol (96%) and in methanol	Complies
Identification		
A - Melting Point	A - 125°C to 128°C	127.2°C
B - IR	B - Infrared Absorption Spectro - Photometry	Positive
C - TLC	C - Chromatograms Spot - To Comply	Complies
Appearance of Solution	Solution S is clear and not more intensely coloured than reference solution BY6	Complies
Acidity	Not more than 0.1 ml of 0.1 M Sodium Hydroxide is required to change the colour of the indicator to blue	0.06 ml of 0.1M NaOH is required
Related Substances	Impurity A - NMT 0.5% Unspecified impurity - NMT 0.5% Total impurity - NMT 1.0%	0.1% Not detected 0.1%
Residual Solvents	Methanol - 3000 ppm	< 3000 ppm
Organic Volatile Impurities	As per USP<467> To meet the requirements	Complies
Sulphated Ash	Max 0.1%	0.02%
Assay	98.0% to 102.0%	99.6%

Remark: The above batch complies with the prescribed standards of quality as per BP Standard.

<i>Rathibha</i>	<i>[Signature]</i>	<i>N. J. Reddy</i>
PREPARED BY QUALITY CONTROL	CHECKED BY QUALITY CONTROL	APPROVED BY QUALITY ASSURANCE
09/10/2019	09/10/2019	09/10/2019


A-25, Road No. 18, IDA Nacharam, Hyderabad - 500 073, Telangana, INDIA
Tel.: +91-40-27171550, 27174691, Fax: +91-40-27171245

(Lanjutan)


Propil Paraben

3/28/2019 155 PP 1018 - Copy 109

CIN No. U24110TG1978PTC002255
GSTIN No. 36AACCS8670F1Z5



SALICYLATES AND CHEMICALS
PRIVATE LIMITED



CERTIFICATE OF ANALYSIS

Product	SALIGIN PP		
Chemical Name	PROPYL PARABEN PROPYL HYDROXY BENZOATE BP		
Batch No.	155/PP/1018	A.R. No.	15PP1869
Mfg. Date	OCT, 2018	Total Batch Qty.	1000 KGS
Exp. Date	SEP, 2023	Dispatch Qty.	500 KGS

TEST	SPECIFICATIONS	RESULTS
Appearance	White or almost white, crystalline powder.	Complies
Solubility	Very slightly soluble in water. Freely soluble in ethanol (96%) and in methanol	Complies
Identification A) Melting Point B) IR C) TLC	96°C to 99°C Infrared absorption Spectrophotometry: Positive Chromatograms Spot: Complies	96.9°C Positive Complies
Appearance of Solution	Solution S is clear and not more intensely coloured than reference solution BY6.	Complies
Acidity	Not more than 0.1ml of 0.1M Sodium Hydroxide is required to change the color of the indicator to blue.	0.05 ml of 0.1M NaOH is required
Related Substances	Impurity A - NMT 0.3% Unspecified impurity - NMT 0.5% Total impurity - NMT 1.0%	0.18% Not detected 0.18%
Residual solvents	n-Propanol 3000 ppm	< 3000 ppm
Organic Volatile Impurities	As per USP <467> To meet the requirements	Complies
Sulphated Ash	Max. 0.1%	0.02%
Assay	98.0% to 102.0%	99.73%

Remark: The above batch complies with the prescribed standards of quality as per BP Standard.

DATE OF COMPILATION DD/MM/YY	<i>Harish</i> Analyst C HARISH	<i>Chm</i> QC Head KRISHNA B. PANDI	<i>Dr. Sanjeev Jadhav</i> QA Head DR. SANJEEV JADHAV
DATE	06.11.2018	06.11.2018	06.11.2018

Minyak Peppermint

(Lanjutan)



fern&petal

Certificate of Analysis

Peppermint Oil (*MENTHA PIPERITA*)

Product Name	Peppermint Oil
Scientific Name	Mentha Piperita
Extraction Method	Steam Distillation
Origin	India
Product Code	EOPT
Batch Number	51304-01

TESTING RESULTS

Analytic Test	Specification Range	Result
Appearance	Colourless to Light Yellow Liquid	Conforms
Odour	Characteristic	Conforms
Relative Density @ 20°C	0.890 - 0.916	0.899
Refractive Index @ 20°C	1.458 - 1.465	1.462
Optical Rotation @ 20°C (Degrees)	-30° to -14°	-18.7°

STABILITY

Manufacturing Date:	12/2021
Testing Date:	01/2022
Commercial Expiry Date:	02/2024

Lampiran 8. Hasil Uji Organoleptis Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary

Hari ke-0



Formula 1

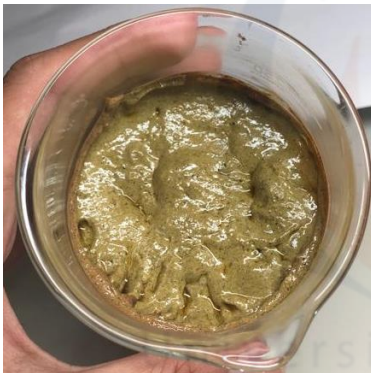


Formula 2



Formula 3

Hari ke-7



Formula 1



Formula 2



Formula 3

Hari ke-14



Formula 1



Formula 2



Formula 3

(Lanjutan)

Hari ke-21



Formula 1



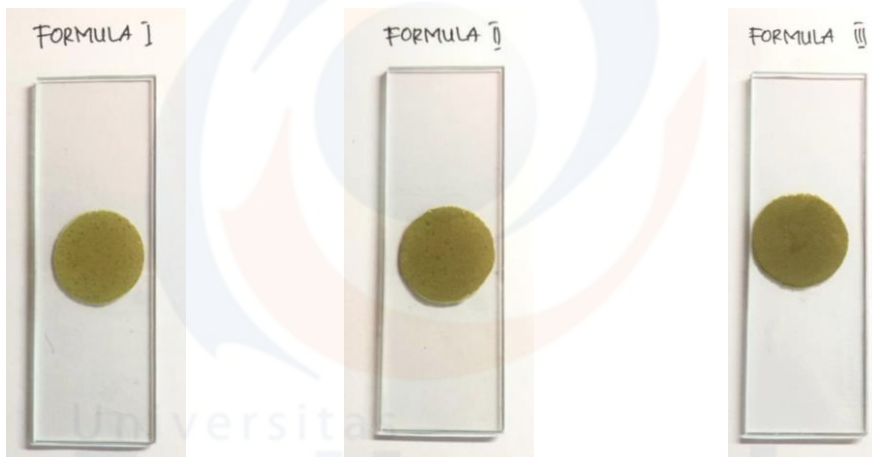
Formula 2



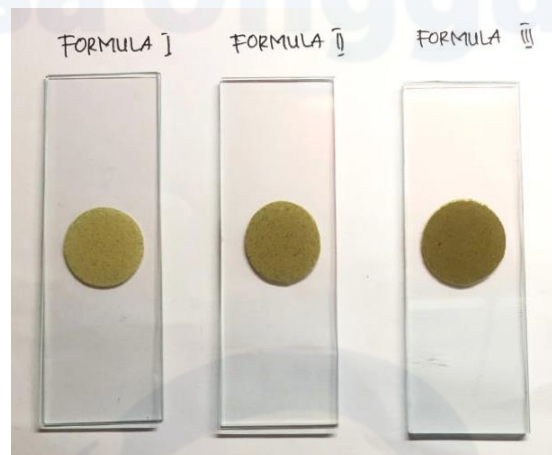
Formula 3

Lampiran 9. Hasil Uji Homogenitas Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary

Hari ke-0

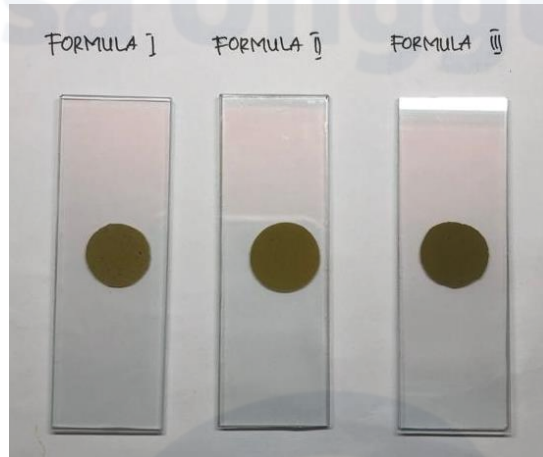


Hari ke-7

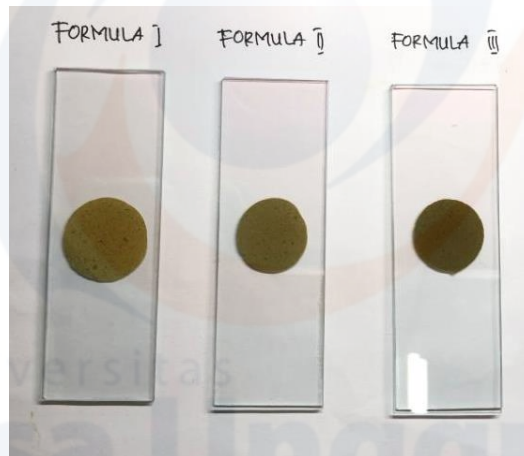


Hari ke-14

(Lanjutan)



Hari ke-21



Lampiran 10. Hasil pH Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary
Hari ke-0



Formula 1

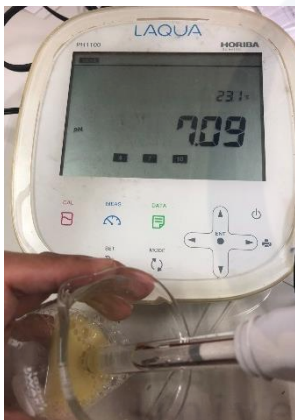


Formula 2



Formula 3

Hari ke-7



Formula 1



Formula 2



Formula 3

(Lanjutan)

Hari ke-14



Formula 1

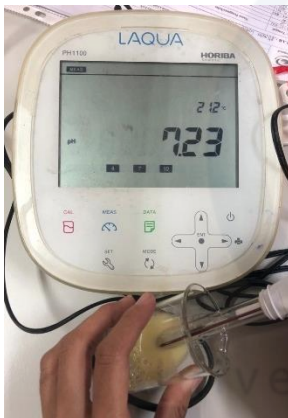


Formula 2

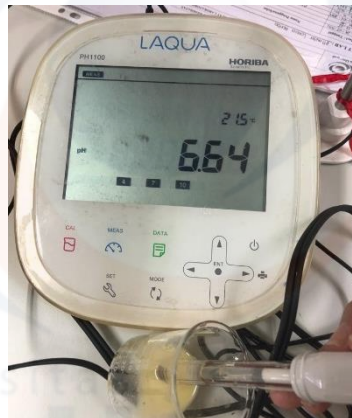


Formula 3

Hari ke-21



Formula 1



Formula 2



Formula 3

Lampiran 11. Hasil Daya Sebar Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary

Pemberian beban 50 gram, 100 gram, dan 150 gram



Beban 50 gram



Beban 100 gram



Beban 150 gram

Formula 1



Beban 50 gram

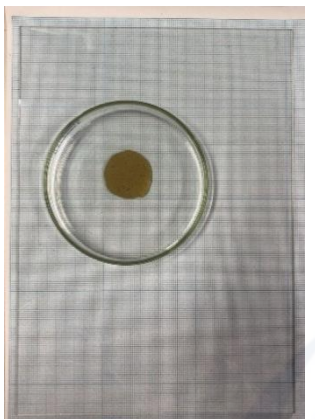


Beban 100 gram

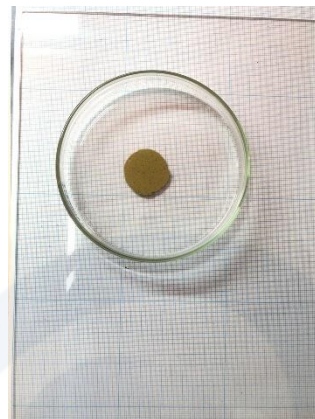


Beban 150 gram

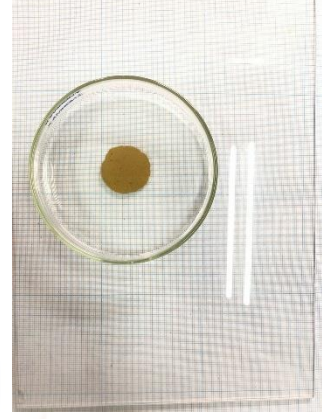
Formula 2



Beban 50 gram



Beban 100 gram



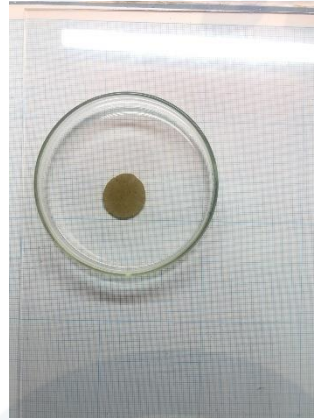
Beban 150 gram

(Lanjutan)

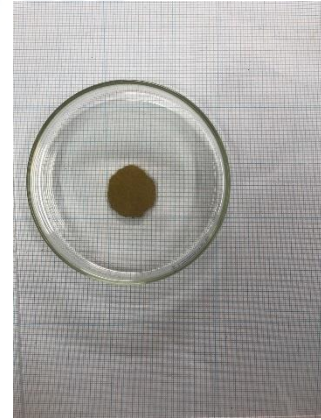
Formula 3



Beban 50 gram



Beban 100 gram



Beban 150 gram

Lampiran 12. Hasil Stabilitas *Heating-cooling stress test* Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary Uji Organoleptis (Uji Stabilitas *Heating-cooling stress test*)



Formula 1

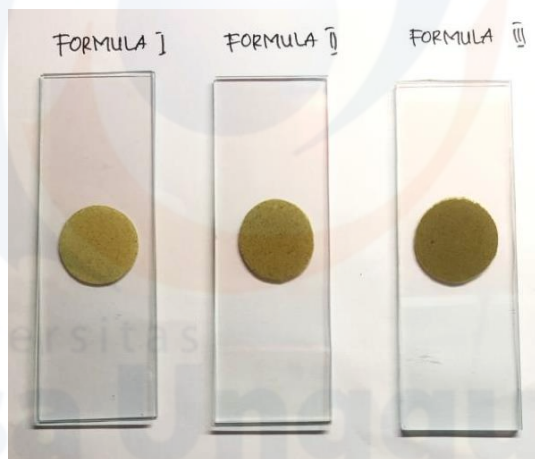


Formula 2



Formula 3

Uji Homogenitas (Uji Stabilitas *Heating-cooling stress test*)



Uji pH (Uji Stabilitas *Heating-cooling stress test*)



Formula 1



Formula 2

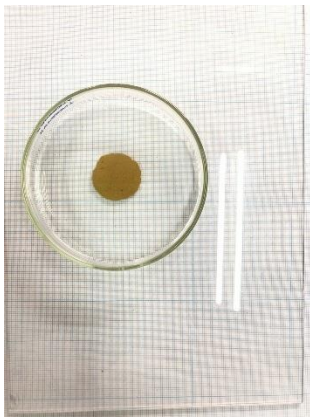


Formula 3

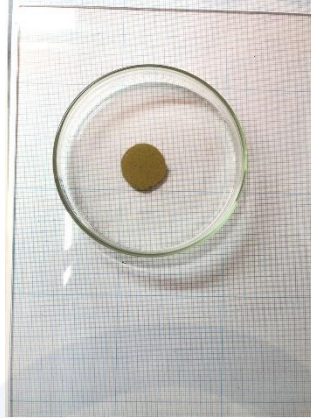
(Lanjutan)

Uji Daya Sebar (Uji Stabilitas *Heating-cooling stress test*)

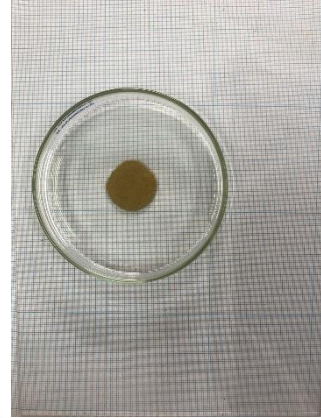
Formula 1



Beban 50 gram

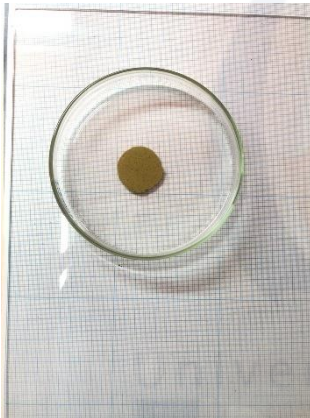


Beban 100 gram

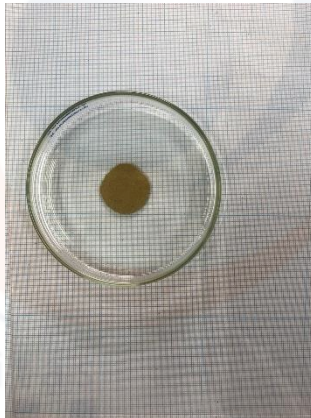


Beban 150 gram

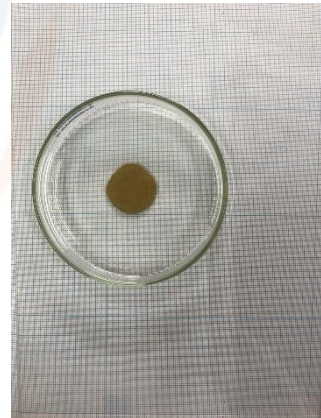
Formula 2



Beban 50 gram

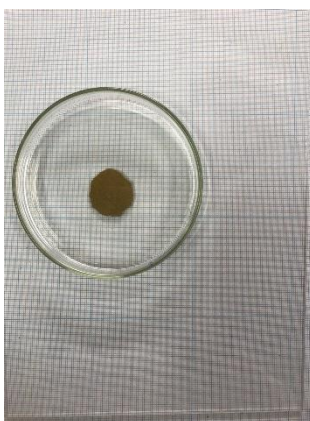


Beban 100 gram

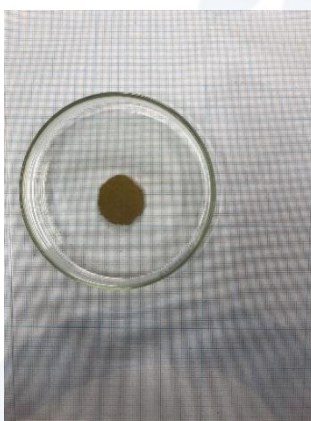


Beban 150 gram

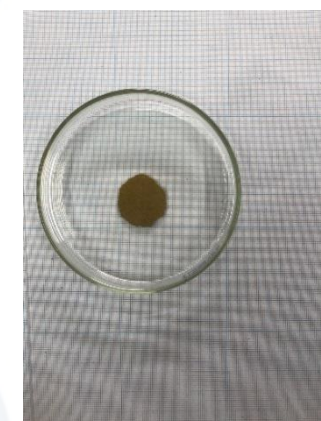
Formula 3



Beban 50 gram



Beban 100 gram



Beban 150 gram

(Lanjutan)

Uji Viskositas (Uji Stabilitas *Heating-cooling stress test*)



Formula 1



Formula 2



Formula 3



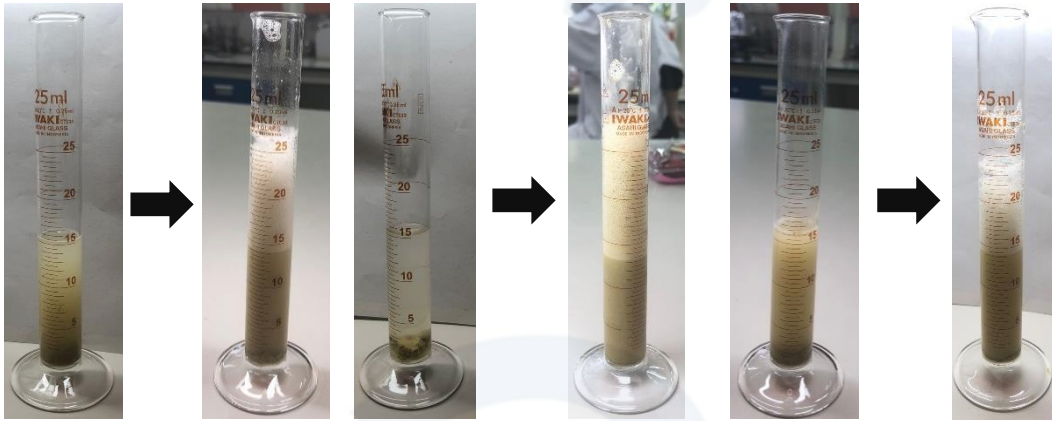
Suhu dingin



Suhu panas

Lampiran 13. Hasil Daya Busa Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary

Hari ke-0

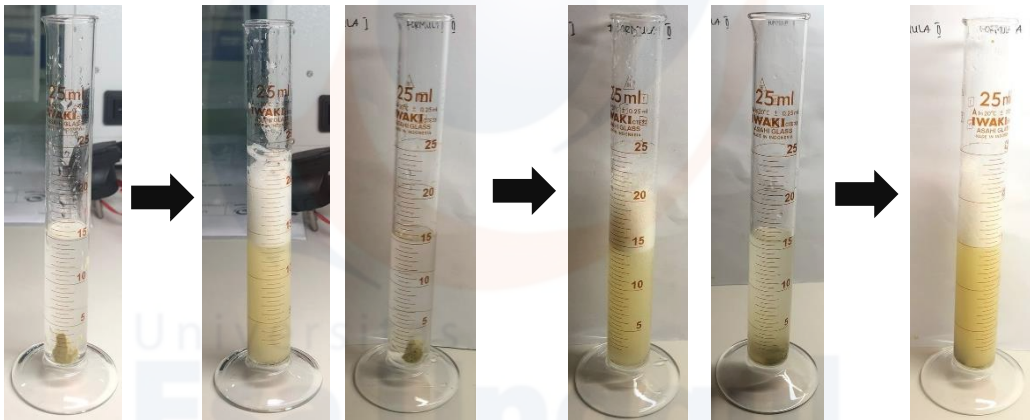


Formula 1

Formula 2

Formula 3

Hari ke-7

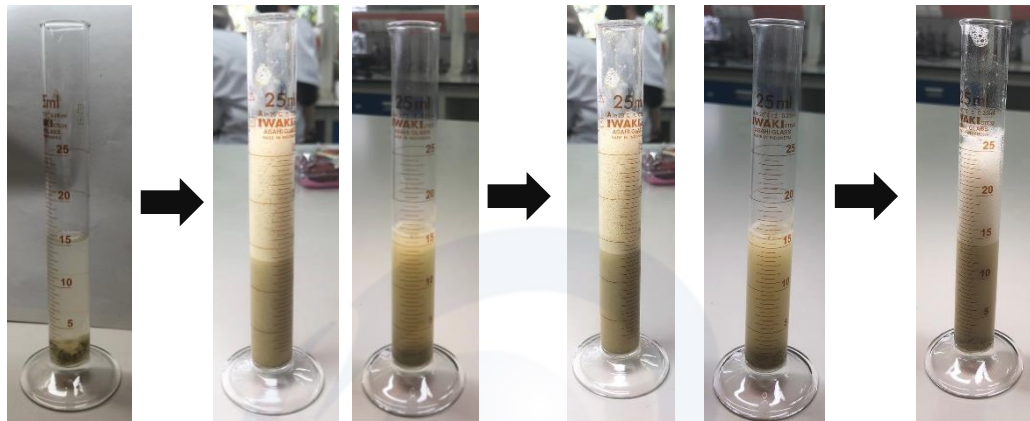


Formula 1

Formula 2

Formula 3

Hari ke-14



Formula 1

Formula 2

Formula 3

(Lanjutan)

Hari ke-21



Formula 1

Formula 2

Formula 3

Lampiran 14. Hasil Viskositas Sediaan Pasta Gigi Ekstrak Etil Asetat Daun Rosemary

Hari ke-0



Formula 1



Formula 2



Formula 3

Hari ke-7



Formula 1



Formula 2



Formula 3

Hari ke-14



Formula 1



Formula 2



Formula 3

(Lanjutan)

Hari ke-21



Formula 1



Formula 2



Formula 3

Lampiran 15. Dokumentasi Penelitian



Bahan pembuatan pasta gigi



Metil paraben dan propil paraben dilarutkan ke dalam gliserin



Penambahan ekstrak



Sediaan pasta gigi ekstrak etil asetat daun rosemary



Penimbangan uji homogenitas



Penimbangan uji daya sebar

(Lanjutan)



Penimbangan uji viskoitas



Lampiran 16. Perhitungan Formula Pasta Gigi Herbal Ekstrak Etil Asetat Daun
Rosemary

Masing-Masing formula dibuat sebanyak 600 gram

Nama Bahan	Formula I (gram)	Formula II (gram)	Formula III (gram)
Ekstrak Kering Etil Asetat Daun Rosemary	90	120	150
Kalsium Karbonat	210	210	210
Natrium Lauril Sulfat	9	9	9
Gliserin	180	180	180
Metil Selulosa	6	6	6
Natrium Sakarin	1,5	1,5	1,5
Titanium Dioksida	3	3	3
Metil Paraben	0,6	0,6	0,6
Propil Paraben	0,12	0,12	0,12
Minyak Peppermint	6	6	6
Akuades (ml)	94,23	64,23	34,23

Kelarutan:

1. Natrium lauril sulfat : mudah larut dalam air
2. Metil selulosa : larut dalam air dingin
3. Natrium sakarin : larut dalam 1,5 bagian air
4. Metil paraben : larut dalam 60 bagian gliserin (36)
5. Propil paraben : larut dalam 140 bagian gliserin (16,8)