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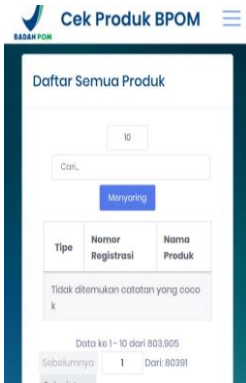


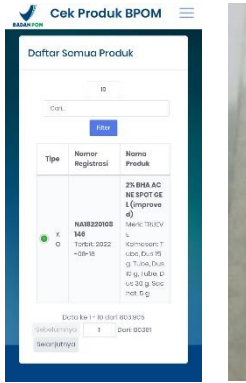


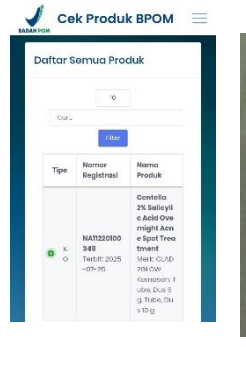

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## LAMPIRAN

### Lampiran 1. *Ethical Clearance*

	<b>YAYASAN HARAPAN BUNDA BATAM</b> <b>INSTITUT KESEHATAN MITRA BUNDA</b> <b>KOMITE ETIK PENELITIAN</b> Jl. Seraya No 1 KOTA BATAM Telp/Fax (0778) 429431, website : <a href="http://wikmb.ac.id">http://wikmb.ac.id</a> SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No. 284/M/2020
<b>KOMITE ETIK PENELITIAN</b> <b>INSTITUT KESEHATAN MITRA BUNDA</b> <i>THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA</i>	
<b>SURAT KETERANGAN</b> <i>ETHICAL APPROVAL</i> No. 089/K/KEP/IKMB/VIII/2025	
Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul : <i>The Research Ethical Committee of Institut Kesehatan Mitra Bunda states hereby that the following proposal :</i>	
"Analisis Kadar Asam Salisilat pada Produk Kosmetik Gel Anti Jerawat di Toko X Kota Batam" <i>"Analysis of Salicylic Acid Levels in Anti-Acne Gel Cosmetic Products at Store X in Batam City"</i>	
Peneliti Utama <i>Principal Investigator</i>	: Riya Heryani
Lokasi Penelitian <i>Research Location</i>	: Laboratorium Kimia Farmasi
Waktu Penelitian <i>Time Schedule</i>	: Juli – Agustus 2025
Responden/Subjek Penelitian <i>Respondent/Research Subject</i>	: 3 Produk Gel
Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan <i>Has proceeded the ethical assessment procedure and been approved for implementation</i>	
<b>Batam, 26 Agustus 2025</b> <b>Ketua / Chairman,</b>  <b>dr. Ibnu Rushd, M.K.M</b>	

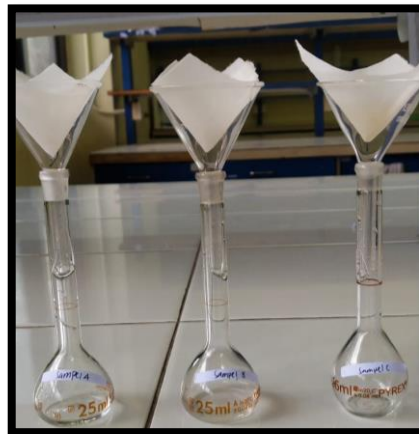
Lampiran 2. Sampel Gel Anti Jerawat

Sampel yang tidak teregistrasi BPOM	
 <p data-bbox="512 875 628 909"><b>Sampel A</b></p>	 
Sampel yang teregistrasi BPOM	
 <p data-bbox="512 1433 628 1467"><b>Sampel B</b></p>	 
 <p data-bbox="512 1921 628 1955"><b>Sampel C</b></p>	 

### Lampiran 3. Proses Preparasi Sampel



Proses penimbangan sampel uji


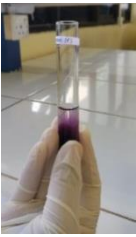


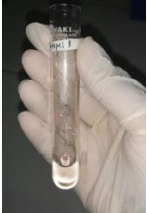
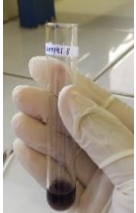




Proses penyaringan sampel uji didalam labu ukur 25 ml



Hasil penyaringan sampel uji

#### Lampiran 4. Hasil Uji Kualitatif Sampel

Sampel Awal	Hasil Uji	Keterangan
 <p data-bbox="408 763 584 792"><b>Kontrol Positif</b></p>	 <p data-bbox="839 763 927 792"><b>Positif</b></p>	<p data-bbox="1158 456 1278 486">Positif (+)</p> <p data-bbox="1098 510 1342 640">Menunjukkan adanya asam salisilat dengan terjadinya perubahan warna menjadi ungu.</p>
 <p data-bbox="437 1126 552 1155"><b>Sampel A</b></p>	 <p data-bbox="839 1104 927 1133"><b>Positif</b></p>	<p data-bbox="1158 819 1278 848">Positif (+)</p> <p data-bbox="1098 873 1342 1003">Menunjukkan adanya asam salisilat dengan terjadinya perubahan warna menjadi ungu.</p>
 <p data-bbox="437 1467 552 1496"><b>Sampel B</b></p>	 <p data-bbox="839 1467 927 1496"><b>Positif</b></p>	<p data-bbox="1158 1182 1278 1211">Positif (+)</p> <p data-bbox="1098 1236 1342 1366">Menunjukkan adanya asam salisilat dengan terjadinya perubahan warna menjadi ungu.</p>
 <p data-bbox="437 1830 552 1859"><b>Sampel C</b></p>	 <p data-bbox="839 1816 927 1845"><b>Negatif</b></p>	<p data-bbox="1158 1545 1278 1574">Negatif (-)</p> <p data-bbox="1086 1594 1350 1753">Tidak menunjukkan adanya asam salisilat dikarenakan tidak terjadi perubahan warna menjadi ungu.</p>

**Lampiran 5.** Perhitungan Uji Kuantitatif

Pembuatan larutan standar asam salisilat 1000 ppm didalam labu ukur 100 ml	$ppm = \frac{mg}{v(l)}$ $= \frac{100 \text{ mg}}{0,1 \text{ l}}$ $= 1000 \text{ ppm}$
Pembuatan larutan Standar asam salisilat 100 ppm didalam labu ukur 50 ml	$C1.V1 = C2.V2$ $1000 \text{ ppm}.V1 = 100 \text{ ppm}.50 \text{ ml}$ $V1 = 5 \text{ ml}$
Pembuatan kurva baku (8, 10,12,14, dan 16 ppm)	<p><b>8 ppm</b></p> $100 \text{ ppm}.V1 = 8 \text{ ppm}.10 \text{ ml}$ $V1 = 0,8 \text{ ml}$ <p><b>10 ppm</b></p> $100 \text{ ppm}.V1 = 10 \text{ ppm}.10 \text{ ml}$ $V1 = 1 \text{ ml}$ <p><b>12 ppm</b></p> $100 \text{ ppm}.V1 = 12 \text{ ppm}.10 \text{ ml}$ $V1 = 1,2 \text{ ml}$ <p><b>14 ppm</b></p> $100 \text{ ppm}.V1 = 14 \text{ ppm}.10 \text{ ml}$ $V1 = 1,4 \text{ ml}$ <p><b>16 ppm</b></p> $100 \text{ ppm}.V1 = 16 \text{ ppm}.10 \text{ ml}$ $V1 = 1,6 \text{ ppm}$

## Lampiran 6. Proses Pengerjaan Uji Kualitatif dan Kuantitatif

### Analisis Kualitatif



Hasil sampel uji yang telah dipreparasi



Larutan sampel uji dimasukkan kedalam tabung reaksi dan diberi label

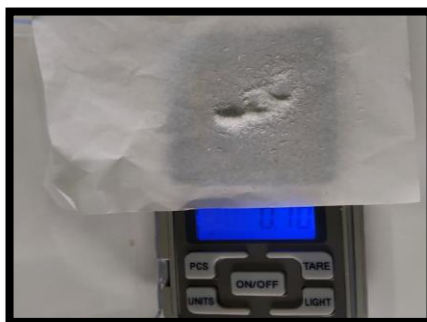


Diteteskan pereaksi  $\text{FeCl}_3$  pada larutan uji sampel (apabila positif akan terjadi perubahan warna menjadi ungu)



Hasil uji kualitatif sampel

### Analisis kuantitatif



Penimbangan asam salisilat murni



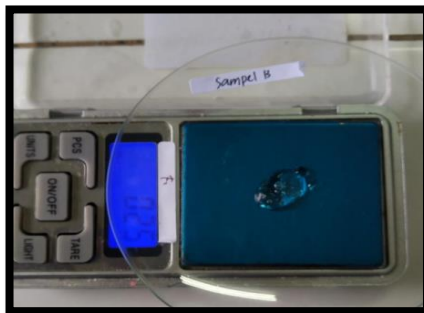
Pembuatan larutan standar 1000 ppm



Pembuatan larutan standar 100 ppm



Pembuatan larutan seri konsentrasi 8, 10, 12, 14, dan 16



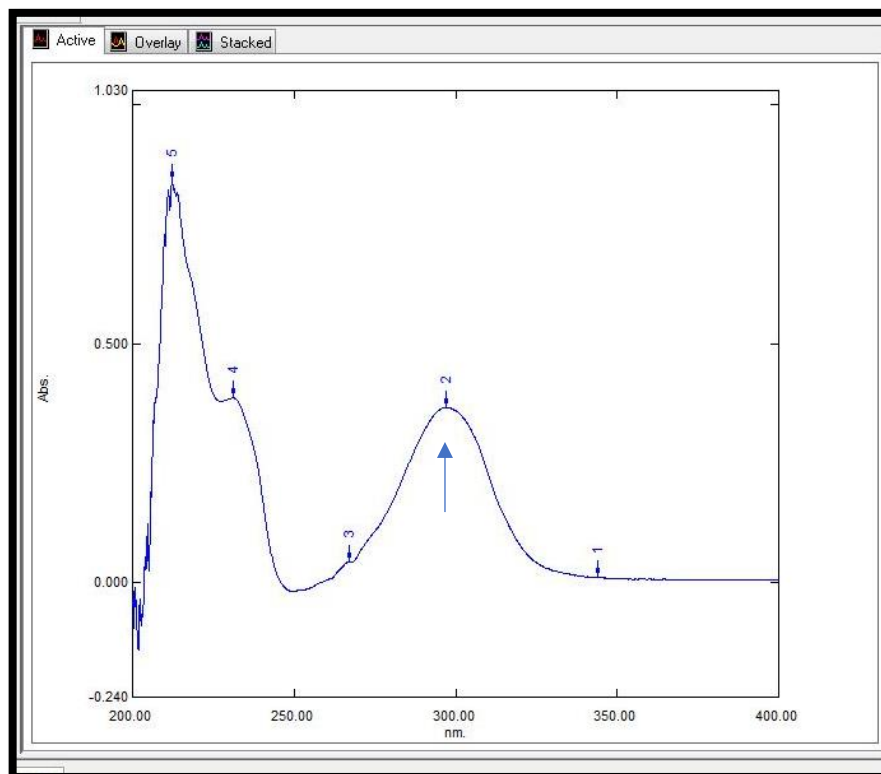
Proses penimbangan sampel



Larutan sampel uji didalam labu ukur 25 ml

**Lampiran 7. Hasil Panjang Gelombang Maksimum Asam Salisilat**

Peak Pick				
No.	P/V	Wavelength nm.	Abs.	Description
1		343.80	0.011	
2		297.20	0.366	
3		267.00	0.044	
4		231.00	0.386	
5		212.40	0.842	



### Lampiran 8. Data absorbansi

Standard Table - [ Active ]							
	Sample ID	Type	Ex	Conc	WL297.2	Wgt.Factor	Comments
1	8 ppm (1)	Standard		8.000	0.291	1.000	
2	8 ppm (2)	Standard		8.000	0.302	1.000	
3	8 ppm (3)	Standard		8.000	0.300	1.000	
4	10 ppm (1)	Standard		10.000	0.368	1.000	
5	10 ppm (2)	Standard		10.000	0.368	1.000	
6	10 ppm (3)	Standard		10.000	0.368	1.000	
7	12 ppm (1)	Standard		12.000	0.483	1.000	
8	12 ppm (2)	Standard		12.000	0.483	1.000	
9	12 ppm (3)	Standard		12.000	0.483	1.000	
10	14 ppm (1)	Standard		14.000	0.559	1.000	
11	14 ppm (2)	Standard		14.000	0.562	1.000	
12	14 ppm (3)	Standard		14.000	0.563	1.000	
13	16 ppm (1)	Standard		16.000	0.672	1.000	
14	16 ppm (2)	Standard		16.000	0.686	1.000	
15	16 ppm (3)	Standard		16.000	0.666	1.000	
16							

Konsentrasi (ppm)	Absorbansi (Rep 1)	Absorbansi (Rep 2)	Absorbansi (Rep 3)	Rata-rata absorbansi
8	0,291	0,302	0,300	0,298
10	0,368	0,368	0,368	0,368
12	0,483	0,483	0,483	0,483
14	0,559	0,562	0,563	0,561
16	0,672	0,686	0,666	0,675


### Lampiran 9. Perhitungan Kadar Asam Salisilat Pada Sampel

Sample Table - [ Active ]						
	Sample ID	Type	Ex	Conc	WL297.2	Comments
1	Sampel A (1)	Unknown		8.343	0.291	
2	Sampel A (2)	Unknown		8.414	0.302	
3	Sampel A (3)	Unknown		8.414	0.302	
4	Sampel B (1)	Unknown		10.815	0.421	
5	Sampel B (2)	Unknown		10.807	0.420	
6	Sampel B (3)	Unknown		10.810	0.421	
7	Sampel 3	Unknown		3.731	0.086	
8	Sampel 3 (2)	Unknown		3.731	0.086	
9	Sampel 3 (3)	Unknown		3.731	0.086	

Sampel	Perhitungan
<b>A</b>	<p>Persamaan regresi:</p> $y = 0,047x - 0,0912$ $0,298 = 0,047x - 0,0912$ $x = 8,280 \text{ ppm}$ <p>Faktor pengenceran: 10</p> $\% \text{ kadar} = \frac{8,280 \text{ ppm} \times 0,025 \times 10}{250 \text{ mg}} 100\%$ $= 0,828\%$
<b>B</b>	<p>Persamaan regresi:</p> $y = 0,047x - 0,0912$ $0,420 = 0,047x - 0,0912$ $x = 10,876 \text{ ppm}$ <p>Faktor pengenceran: 10</p> $\% \text{ kadar} = \frac{10,876 \text{ ppm} \times 0,025 \times 10}{250 \text{ mg}} 100\%$ $= 1,087\%$

Lampiran 10. Sertifikat Bahan yang Digunakan

1. CoA asam salisilat



## 华阴市锦前程药业有限公司

### JQC (Huayin) Pharmaceutical Co., Ltd

GMP/ISO Certificate    Manufacturing Add: Teyuan Road, Huayin City, Shaanxi Province, P.R. China.    PC274330 Tel: +86 913 43086700    Fax: +86 913 43086700

分析报告单    STP-QS-465-T1-03


CERTIFICATE OF ANALYSIS

I/I	产品名称 Product name	水杨酸 Salicylic acid	生产日期 Manufacturing Date	2024.09.14
	批号 Batch No.	YC2409122	检验日期 Test Date	2024.09.16
	数量 Quantity	4500kg	报告日期 Issued Date	2024.09.16
	检验依据 Reference Spec.	BP2020/EP10.0/USPNF2024	有效期至 Expiry Date	2027.09.13
	检验项目 Test Items	规格 Specifications		
	性状 Characters	白色或几乎白色，结晶性粉末或白色或无色针状晶体，微溶于水，溶于乙醇（96%），溶于二氯甲烷。 A white, or almost white, crystalline powder or white or colourless, acicular crystals, slightly soluble in water, freely soluble in ethanol (96 per cent), sparingly soluble in methylene chloride.		
	鉴别 Identification	A. 熔点 158 °C -161 °C Melting point 158 °C to 161 °C B. 红外吸收图谱与标准品图谱一致 The IR spectrum of sample complies with Salicylic acid CRS		
	溶液外观 Appearance of solution	溶液应澄清 Solution is clear and colourless		
	氯化物 Chlorides	≤100ppm NMT100ppm		< 100ppm
	硫酸盐 Sulfates	≤200ppm NMT200ppm		< 200ppm
	重金属 Heavy metals	≤20ppm NMT20ppm		< 20ppm
	干燥失重 Loss on drying	≤0.5% NMT0.5%		0.03%
	灼灼残渣 Residue on ignition	≤0.05% NMT 0.05%		0.04%
	相关物质 Related substances	4-羟基苯甲酸 4-hydroxybenzoic acid	≤0.1%	0.001%
		4-羟基间苯二甲酸 4-hydroxyisophthalic acid	≤0.05%	N.D
		苯酚 Phenol	≤0.02%	N.D
		其它杂质 Any other impurities	≤0.05%	N.D
		总杂质 Total impurities	≤0.2%	0.001%
	含量 (干品计) Assay (on dried basis)	含 C <sub>7</sub> H <sub>6</sub> O <sub>3</sub> 为 99.0%-100.5% Contains C <sub>7</sub> H <sub>6</sub> O <sub>3</sub> 99.0%-100.5%		
	【结论】 Conclusion	本品按 BP2020/EP10.0/USPNF2024 检验，结果符合规定。 The product comply with the requirements of BP2020/EP10.0/USPNF2024.		

负责人/日期: 李立    QA 放行人/日期: 侯超    复核者/日期: 李立    报告者/日期: 李立

O. M/Date: 2024.09.16    QA Releaser/Date: 2024.09.16    Reviewer/Date: 2024.09.16    Reported by/Date: 2024.09.16

## 2. CoA FeCl



## Certificate of Analysis

1.03943.0000 Iron(III) chloride hexahydrate for analysis EMSURE® ACS, Reag. Ph Eur  
Batch B2131443

	Spec. Values		Batch Values	
Assay (iodometric, FeCl <sub>2</sub> ·6H <sub>2</sub> O)	99.0 - 102.0	%	99.6	%
Identity	passes test		passes test	
Insoluble matter	≤ 0.01	%	≤ 0.01	%
Free chlorine	passes test		passes test	
Acidic substances	passes test		passes test	
Nitrate (NO <sub>3</sub> )	≤ 0.01	%	≤ 0.01	%
Sulfate (SO <sub>4</sub> )	≤ 0.01	%	≤ 0.01	%
Total nitrogen (N)	≤ 0.001	%	≤ 0.001	%
Total phosphorus (as PO <sub>4</sub> )	≤ 0.01	%	≤ 0.01	%
Heavy metals (as Pb)	≤ 0.005	%	≤ 0.005	%
Ca (Calcium)	≤ 0.01	%	≤ 0.01	%
Cu (Copper)	≤ 0.003	%	≤ 0.003	%
Fe II (Iron II)*	≤ 0.002	%	≤ 0.002	%
K (Potassium)	≤ 0.005	%	≤ 0.005	%
Mg (Magnesium)	≤ 0.005	%	≤ 0.005	%
Na (Sodium)	≤ 0.05	%	≤ 0.05	%
Zn (Zinc)	≤ 0.003	%	≤ 0.003	%

\* The Fe(II)-content increases if the recommended storage conditions (+15 to +25 °C) are not observed.

Date of release (DD.MM.YYYY) 03.11.2022  
Minimum shelf life (DD.MM.YYYY) 30.11.2025

Dr. Dimitrij Rytin  
Responsible laboratory manager quality control


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Merck KGaA  
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SALISA Version 1248780/9600009797551 Date 03.11.2022

The life science business of Merck KGaA, Darmstadt,  
Germany operates as MilliporeSigma in the U.S. and  
Canada.

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## 3. CoA ethanol (p.a)



## Specification

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1.59010.2500 Ethanol 96% EMSURE® Reag. Ph Eur

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	Specification		
Assay (m/m)	92.6 - 95.2	%	
Assay (V/V)	95.1 - 96.9	%	
Identity (IR)	conforms		
Appearance	conforms		
Acidity or alkalinity	conforms		
Density (d 20 °C/20 °C)	0.805 - 0.812		
Boiling point	78 - 79	°C	
Absorption	conforms		
Volatile impurities (GC)	conforms		
Evaporation residue	≤ 25	mg/l	

Jeannette David  
Responsible laboratory manager quality control

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