Lampiran 1. Perhitungan

1. Penentuan kandungan total bahan aktif

a) $Cet - Cpe = 12{,}5g - 3g \ = 9\ g/ml$

b) $Cet - Cpe = 9g - 4g \ = 5\ g/ml$

c) $Cet - Cpe = 39{,}35g - 3{,}5g \ = 35{,}85\ g/ml$

d) $Cet - Cpe = 16{,}6g - 10g \ = 6{,}6\ g/ml$

2. Bahan yang tidak larut dalam etanol

a) $\frac{b2-b0}{b1} \times 100 = \frac{0{,}42-0{,}37}{5} \times 100 = 1\ g/ml$

b) $\frac{b2-b0}{b1} \times 100 = \frac{0{,}52-0{,}46}{5{,}08} \times 100 = \ 1{,}181/ml$

c) $\frac{b2-b0}{b1} \times 100 = \frac{0{,}51-0{,}46}{5{,}04} \times 100 = 0{,}992\ g/ml$

d) $\frac{b2-b0}{b1} \times 100 = \frac{0{,}38-0{,}33}{5.03} \times 100 = 0{,}994\ g/ml$

3. Alkali bebas

a) $\frac{40 \times V \times N}{b} \times 100 = \frac{40 \times 1 \times 0{,}1}{151{,}04} \times 100 = 2{,}648\ g/ml$

b) $\frac{40 \times V \times N}{b} \times 100 = \frac{40 \times 1 \times 0{,}1}{134{,}28} \times 100 = 2{,}978\ g/ml$

c) $\frac{40 \times V \times N}{b} \times 100 = \frac{40 \times 0{,}5 \times 0{,}1}{148{,}30} \times 100 = 1{,}348\ g/ml$

d) $\frac{40 \times V \times N}{b} \times 100 = \frac{40 \times 0{,}5 \times 0{,}1}{151{,}17} \times 100 = 1{,}323\ g/ml$

4. Asam lemak bebas

a) $\frac{282 \times V \times N}{b} \times 100 = \frac{282 \times 0{,}1 \times 0{,}1}{154{,}04} \times 100 = 1{,}83\ g/ml$

b) $\frac{282 \times V \times N}{b} \times 100 = \frac{282 \times 0{,}5 \times 0{,}1}{134{,}28} \times 100 = 10{,}50\ g/ml$

c) $\frac{282 \times V \times N}{b} \times 100 = \frac{282 \times 2 \times 0{,}1}{148{,}30} \times 100 = 0{,}38\ g/ml$

d) $\frac{282 \times V \times N}{b} \times 100 = \frac{282 \times 0{,}5 \times 0{,}1}{151{,}17} \times 100 = 9{,}32\ g/ml$

5. Bobot jenis

a) $\frac{c-a}{b-a} = \frac{82{,}36-30{,}98}{81{,}09-30{,}98} = 1{,}025\ g/ml$

b) $\frac{c-a}{b-a} = \frac{82{,}13-30{,}98}{81{,}09-30{,}98} = 1{,}020\ g/ml$

c) $\frac{c-a}{b-a} = \frac{82{,}43-30{,}98}{81{,}09-30{,}98} = 1{,}026\ g/ml$

d) $\frac{c-a}{b-a} = \frac{83{,}22-30{,}98}{81{,}09-30{,}98} = 1{,}042\ g/ml$

6. Uji zona hambat terhadap bakteri E.coli

- **Replikasi 1**

a) Tidak terbentuk zona hambat

b) $\frac{D1+D2}{2} = \frac{0,5+1}{2} = 0,75cm$ = 7,5 mm

c) $\frac{D1+D2}{2} = \frac{1+1,2}{2} = 1,1cm$ = 11 mm

d) $\frac{D1+D2}{2} = \frac{0,5+1}{2} = 0,75cm$ = 7,5 mm

e) $\frac{D1+D2}{2} = \frac{2+2}{2} = 2\ cm$= 20 mm (kontrol positif)

- **Replikasi 2**

a) Tidak terbentuk zona hambat

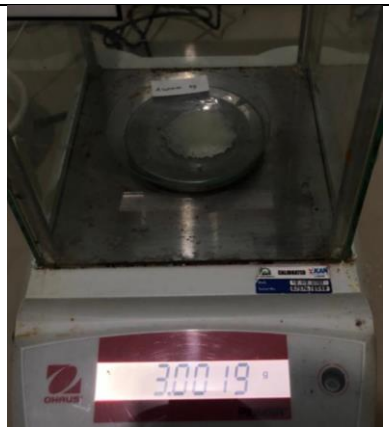
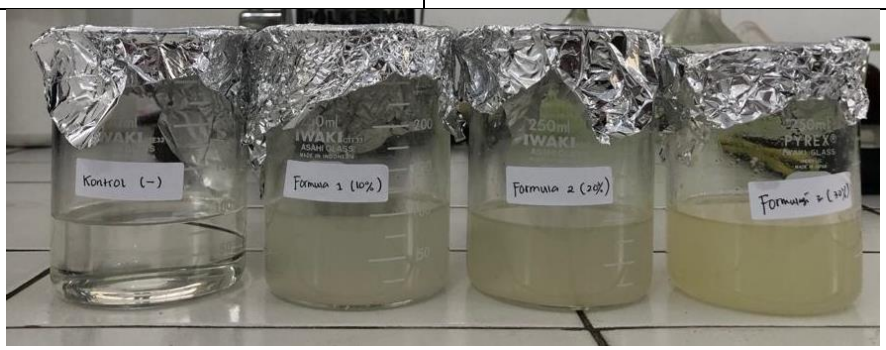
b) $\frac{D1+D2}{2} = \frac{0,9+0,4}{2} = 0,65\ cm$ = 6,5 mm

c) $\frac{D1+D2}{2} = \frac{1,3+1,4}{2} = 1,35cm$ = 13,5 mm

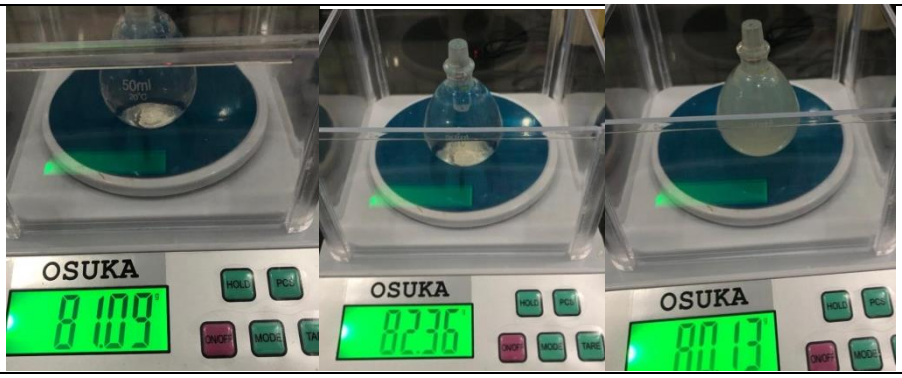
d) $\frac{D1+D2}{2} = \frac{1,7+1,6}{2} = 1,65\ cm$ = 16,5 mm

e) $\frac{D1+D2}{2} = \frac{2+2}{2} = 2\ cm$ = 20 mm(kontrol positif)

Lampiran 2. Pengujian kimia

<table>
<tr><th colspan="2">Pembuatan sabun</th></tr>
<tr><td> 
Keterangan : membersihkan jeruk nipis</td><td> 
Keterangan : mengambilan perasan jeruk nipis</td></tr>
<tr><td> 
Keterangan : penimbangan bahan untuk membuat sabun</td><td> 
Keterangan : proses pembuatan sabun</td></tr>
<tr><td colspan="2"> 
Keterangan : sabun cair cuci tangan dengan berbagai konsentrasi</td></tr>
<tr><th colspan="2">Pengujian pH</th></tr>
</table>

Pengujian bobot jenis

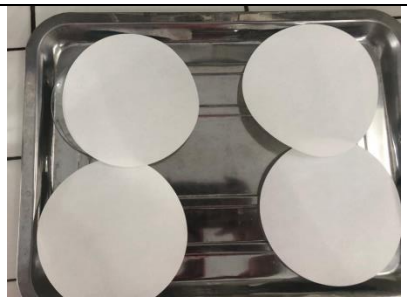
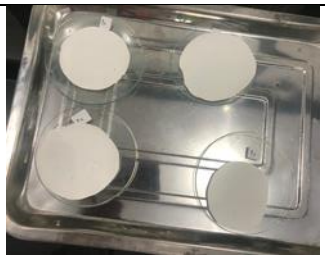


Pengujian Bahan larut dalam etanol

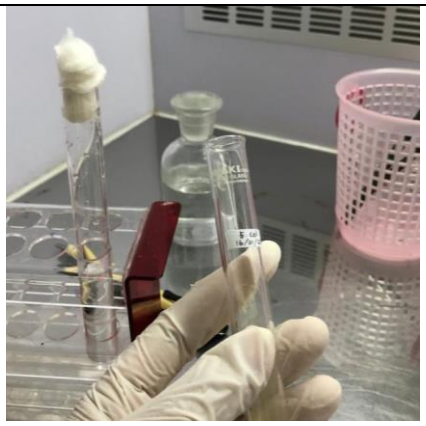
Pengujian alkali bebas, uji asam lemak bebas, uji larut petroleum eter, bahan yang tidak larut etanol

Keterangan : proses pada saat di corong pisah

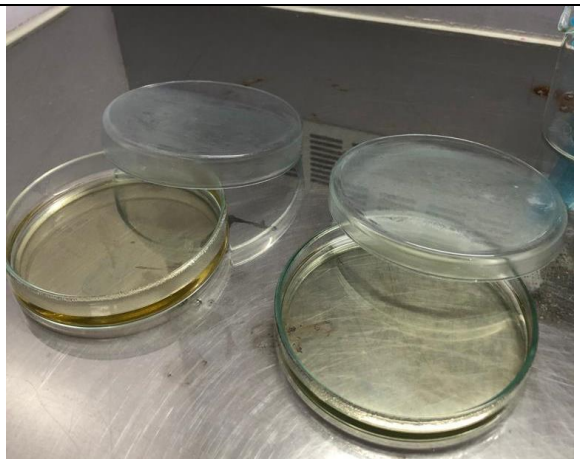
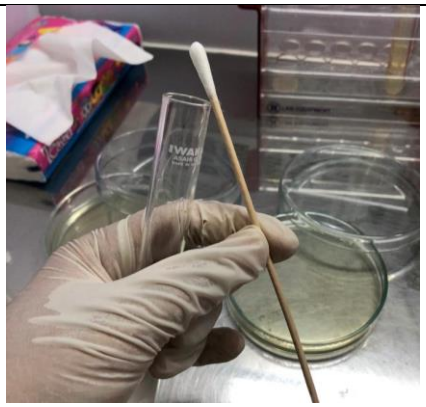
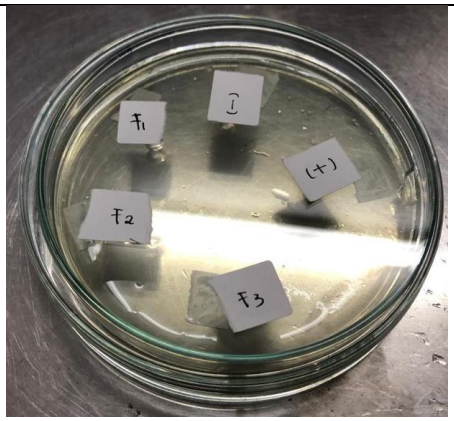
Keterangan : penimbangan erlemeyer kosong

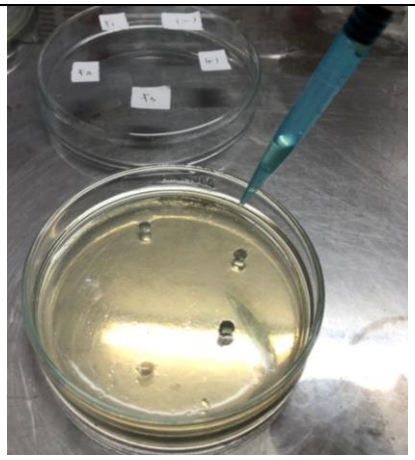
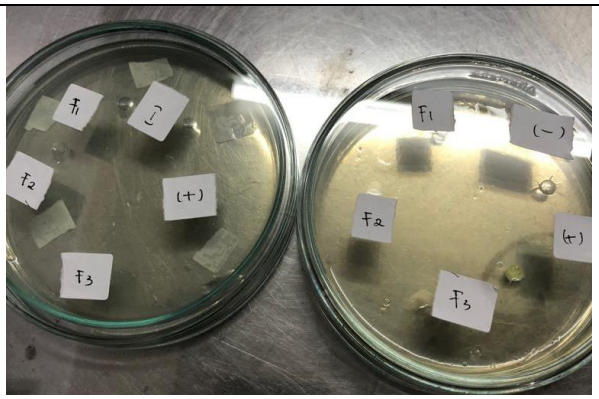
 **Keterangan :** kertas saring untuk pompa vakum	 **Keterangan :** proses pengggunaan pompa vakum
 **Keterangan :** pemanasan di hotplate	 **Keterangan :** proses titrasi
 **Keterangan :** kertas saring sesudah di oven	

Lampiran 3. Pengujian Mikrobiologi

<table>
<tr>
<td> 
Keterangan : pengenceran bakteri</td>
<td> 
Keterangan : penimbangan media MHA</td>
</tr>
<tr>
<td> 
Keterangan : pembuatan media MHA</td>
<td> 
Keterangan : sterilisasi media MHA</td>
</tr>
</table>

<table>
<tr>
<td> 

Keterangan : hasil pengenceran bakteri perbandingan dengan Mc Farland 0,5</td>
<td> 
Keterangan : penuangan media kedalam cawan petri</td>
</tr>
<tr>
<td> 
Keterangan : pengambilan bakteri dengan kapas steril</td>
<td> 

Keterangan : beri lubang sumuran pada media</td>
</tr>
<tr>
<td> 
Keterangan : pemberian sampel sesuai konsentrasi</td>
<td> 

Keterangan : dilakukan secara duplo</td>
</tr>
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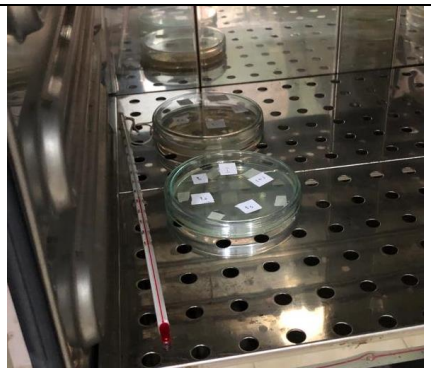
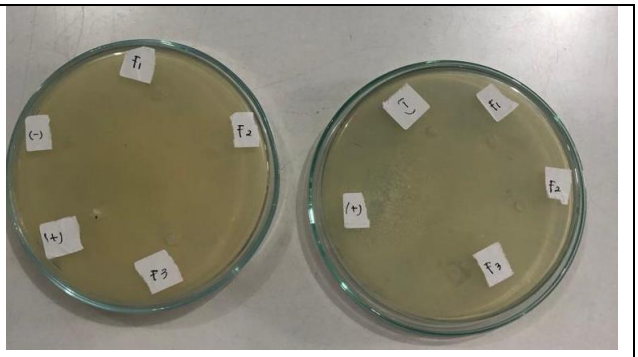
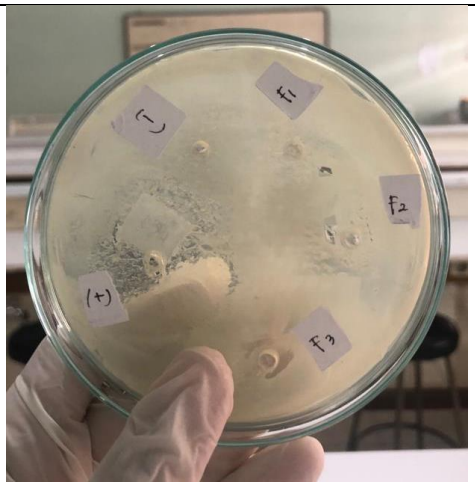
 **Keterangan :** dimasukan kedalam inkubator	 **Keterangan :** hasil yang didapatkan setelah 24 jam
 **Keterangan :** hasil zona hambat R1	 **Keterangan :** hasil zona hambat R2