BAB V

KESIMPULAN DAN SARAN

A. KESIMPULAN

1. Variasi konsentrasi PEG-7 Glyceryl Cocoate sebagai surfaktan berpengaruh terhadap viskositas sediaan sehingga mempengaruhi stabilitas *micellar based water*.
2. Formula 3 (2,65%) menghasilkan *micellar based water* yang paling stabil dilihat dari penurunan viskositas yang tidak tajam selama penyimpanan.

B. SARAN

1. Perlu dilakukan penelitian lebih lanjut dalam formulasi *micellar based water* minyak biji anggur (*Grape seed oil*) menggunakan jenis *micellar agent* yang lain.
2. Perlu dilakukan penelitian lebih lanjut dalam formulasi *micellar based water* minyak biji anggur (*Grape seed oil*) dengan konsentrasi surfaktan yang berbeda sehingga dapat diperoleh micellar based water yang stabil.
3. Sebaiknya dilakukan pengujian dengan mempertimbangkan suhu penyimpanan.

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L A M P I R A N

Lampiran 1. Certivicate of analysis *grape seed oil*

NEW DIRECTIONS
AROMATICS

CERTIFICATE OF ANALYSIS

Product:	**Grapeseed Carrier Oil**
Lot No.:	15010 - A56
Best Before:	July, 2020
	Store in air tight container; in a cool dry area; away from direct sunlight.

Properties	Specifications	Results
Appearance:	Light yellowish green to green liquid.	Complies
Odor:	Characteristic neutral odor.	Complies
Solubility:	Soluble in alcohol and oils. Insoluble in water.	Complies
Density:	0.917 - 0.935 @ 25°C	0.927
Refractive Index:	1.470 - 1.474 @ 25°C	1.4730
Peroxide Value:	<0.5 meqO_2/kg	Complies
Unsaponifiables:	0.8 - 1.5 %	Complies
Saponification Value:	185 - 200	Complies
Iodine Value:	125 - 145	Complies

www.newdirectionsaromatics.com Tel: 1 800 246 7817 Fax: 1 800 246 8207

Lampiran 2. Perhitungan Viskositas *Micellar Based Water*

Perhitungan viskositas *micellar based water* dapat diukur dengan persamaan :

$$V = \frac{d_1 \times t_1}{d_2 \times t_2}$$

Keterangan:

V = viskositas

d_1 = densitas sampel

t_1 = waktu alir sampel

d_2 = densitas aquadest

t_2 = waktu alir aquadest

Data Hasil Pengukuran:

Waktu alir aquadest:

1. 4,55 detik
2. 4,55 detik
3. 4,54 detik

Rata-rata waktu alir aquadest = 4,55 detik

Perhitungan Viskositas:

Formula 1 (minggu 0)

I. 5,86 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 5{,}86 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{4{,}672}{4{,}532}$

= 1,03 cps

II. 5,89 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 5{,}89 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{4{,}696}{4{,}532}$$

= 1,04 cps

III. 5,82 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 5{,}82 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{4{,}640}{4{,}532}$$

= 1,02 cps

Formula 2 (minggu 0)

I. 6,14 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 6{,}14 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{4{,}895}{4{,}532}$$

= 1,08 cps

II. 6,20 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 6{,}20 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{4{,}943}{4{,}532}$$

= 1,09 cps

III. 6,08 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}08 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{4{,}847}{4{,}532}$

= 1,07 cps

Formula 3 (minggu 0)

I. 6,52 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}52 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}198}{4{,}532}$

= 1,15 cps

II. 6,50 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}50 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}182}{4{,}532}$

= 1,14 cps

III. 6,50 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}50 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}182}{4{,}532}$

= 1,14 cps

Formula 1 (minggu 1)

I. 7,27 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}27\ \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}796}{4{,}532}$

= 1,28 cps

II. 7,24 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}24\ \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}804}{4{,}532}$

= 1,28 cps

III. 7,28 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}28\ \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}804}{4{,}532}$

= 1,28 cps

Formula 2 (minggu 1)

I. 7,35 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}35\ \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}860}{4{,}532}$

= 1,29 cps

II. 7,37 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}37 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}876}{4{,}532}$

= 1,30 cps

III. 7,34 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}34 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}852}{4{,}532}$

= 1,29 cps

Formula 3 (minggu 1)

I. 7,49 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}49 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}971}{4{,}532}$

= 1,32 cps

II. 7,52 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}52 \times 0{,}86}{0{,}996 \times 4.55}$

$$= \frac{5,995}{4,532}$$

= 1,32 cps

III. 7,47 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0,927 \times 7,47 \times 0,86}{0,996 \times 4.55}$$

$$= \frac{5,955}{4,532}$$

= 1,31 cps

Formula 1 (minggu 2)

I. 7,43 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0,927 \times 7,43 \times 0,86}{0,996 \times 4.55}$$

$$= \frac{5,923}{4,532}$$

= 1,31 cps

II. 7,44 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0,927 \times 7,44 \times 0,86}{0,996 \times 4.55}$$

$$= \frac{5,931}{4,532}$$

= 1,31 cps

III. 7,46 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 7{,}46 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{5{,}947}{4{,}532}$$

= 1,31 cps

Formula 2 (minggu 2)

I. 7,52 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 7{,}52 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{5{,}995}{4{,}532}$$

= 1,32 cps

II. 7,54 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 7{,}54 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{6{,}011}{4{,}532}$$

= 1,33 cps

III. 7,52 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$$= \frac{0{,}927 \times 7{,}52 \times 0{,}86}{0{,}996 \times 4.55}$$

$$= \frac{5{,}995}{4{,}532}$$

= 1,32 cps

Formula 3 (minggu 2)

I. 7,57 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}57 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{6{,}035}{4{,}532}$

= 1,33 cps

II. 7,60 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}60 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{6{,}059}{4{,}532}$

= 1,34 cps

III. 7,58 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}58 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{6{,}043}{4{,}532}$

= 1,33 cps

Formula 1 (minggu 3)

I. 7,39 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}39 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}891}{4{,}532}$

= 1,30 cps

II. 7,40 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}40 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}900}{4{,}532}$

= 1,30 cps

III. 7,40 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}40 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}900}{4{,}532}$

= 1,30 cps

Formula 2 (minggu 3)

I. 7,46 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}46 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}947}{4{,}532}$

= 1,31 cps

II. 7,48 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}48 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}963}{4{,}532}$

= 1,32 cps

III. 7,45 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}45 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}939}{4{,}532}$

= 1,31 cps

Formula 3 (minggu 3)

I. 7,50 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}50 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}979}{4{,}532}$

= 1,32 cps

II. 7,52 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}52 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}995}{4{,}532}$

= 1,32cps

III. 7,51 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}51 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}987}{4{,}532}$

= 1,32 cps

Formula 1 (minggu 4)

I. 6,95 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}95 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}541}{4{,}532}$

= 1,22 cps

II. 7,05 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}05 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}620}{4{,}532}$

= 1,24 cps

III. 6,88 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 6{,}88 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}485}{4{,}532}$

= 1,21 cps

Formula 2 (minggu 4)

I. 7,11 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}11 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}668}{4{,}532}$

= 1,25 cps

II. 7,15 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}15 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}700}{4{,}532}$

= 1,26 cps

III. 7,13 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}13 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}684}{4{,}532}$

= 1,25 cps

Formula 3 (minggu 4)

I. 7,38 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}38 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}883}{4{,}532}$

= 1,30 cps

II. 7,35 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}35 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}860}{4{,}532}$

= 1,29 cps

III. 7,30 detik

Viskositas $= \frac{density\ sampel \times waktu\ sampel \times \eta\ aquadest}{density\ pembanding \times waktu\ pembanding}$

$= \frac{0{,}927 \times 7{,}30 \times 0{,}86}{0{,}996 \times 4.55}$

$= \frac{5{,}820}{4{,}532}$

= 1,28 cps

Standardeviasi

Minggu 0

F1 = 0,01

F2 = 0,01

F3 = 0,005774

Minggu 1

F1 = 0,005774

F2 = 0,005774

F3 = 0,005774

Minggu 2

F1 = 0

F2 = 0,005774

F3 = 0,005774

Minggu 3

F1 = 0

F2 = 0,005774

F3 = 0

Minggu 4

F1 = 0,015275

F2 = 0,005774

F3 = 0,01

Lampiran 3. Hasil uji statistik viskositas

1. Viskositas Minggu 0

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositas minggu 0	9	1,0844	,04978	1,02	1,15

One-Sample Kolmogorov-Smirnov Test

		viskositas minggu 0
N		9
Normal Parameters[a,b]	Mean	1,0844
	Std. Deviation	,04978
Most Extreme Differences	Absolute	,201
	Positive	,147
	Negative	-,201
Kolmogorov-Smirnov Z		,603
Asymp. Sig. (2-tailed)		,860

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

viskositas minggu 0

Levene Statistic	df1	df2	Sig.
,211	2	6	,816

ANOVA

viskositas minggu 0

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,019	2	,010	124,429	,000
Within Groups	,000	6	,000		
Total	,020	8			

Post Hoc Tests

Homogeneous Subsets

viskositas minggu 0

Student-Newman-Keuls[a]

formula micellar	N	Subset for alpha = 0.05		
		1	2	3
formula1	3	1,0300		
formula2	3		1,0800	
formula3	3			1,1433
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

2. Viskositas minggu 1

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Viskositas minggu 1	9	1,2956	,01810	1,27	1,32

One-Sample Kolmogorov-Smirnov Test

		Viskositas minggu 1
N		9
Normal Parameters[a,b]	Mean	1,2956
	Std. Deviation	,01810
Most Extreme Differences	Absolute	,176
	Positive	,176
	Negative	-,134
Kolmogorov-Smirnov Z		,528
Asymp. Sig. (2-tailed)		,943

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

Viskositas minggu 1

Levene Statistic	df1	df2	Sig.
,000	2	6	1,000

ANOVA

Viskositas minggu 1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,002	2	,001	36,333	,000
Within Groups	,000	6	,000		
Total	,003	8			

Post Hoc Tests

Homogeneous Subsets

Viskositas minggu 1

Student-Newman-Keuls[a]

Formula Micellar	N	Subset for alpha = 0.05		
		1	2	3
formula1	3	1,2767		
formula2	3		1,2933	
formula3	3			1,3167
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

3. Viskositas minggu 2

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		viskositas minggu 2
N		9
Normal Parameters[a,b]	Mean	1,3222
	Std. Deviation	,01093
Most Extreme Differences	Absolute	,206
	Positive	,202
	Negative	-,206
Kolmogorov-Smirnov Z		,618
Asymp. Sig. (2-tailed)		,839

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

viskositas minggu 2

Levene Statistic	df1	df2	Sig.
8,000	2	6	,020

ANOVA

viskositas minggu 2

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,001	2	,000	18,500	,003
Within Groups	,000	6	,000		
Total	,001	8			

Post Hoc Tests

Homogeneous Subsets

viskositas minggu 2

Student-Newman-Keuls[a]

formula micellar	N	Subset for alpha = 0.05		
		1	2	3
formula1	3	1,3100		
formula2	3		1,3233	
formula3	3			1,3333
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

4. Viskositas minggu 3

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositas minggu 3	9	1,3111	,00928	1,30	1,32

One-Sample Kolmogorov-Smirnov Test

		viskositas minggu 3
N		9
Normal Parameters[a,b]	Mean	1,3111
	Std. Deviation	,00928
Most Extreme Differences	Absolute	,275
	Positive	,218
	Negative	-,275
Kolmogorov-Smirnov Z		,826
Asymp. Sig. (2-tailed)		,502

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

viskositas minggu 3

Levene Statistic	df1	df2	Sig.
16,000	2	6	,004

ANOVA

viskositas minggu 3

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,001	2	,000	28,000	,001
Within Groups	,000	6	,000		
Total	,001	8			

Post Hoc Tests

Homogeneous Subsets

viskositas minggu 3

Student-Newman-Keuls[a]

formula micellar	N	Subset for alpha = 0.05		
		1	2	3
formula1	3	1,3000		
formula2	3		1,3133	
formula3	3			1,3200
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

5. Viskositas minggu 4

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositasminggu4	9	1,2556	,03046	1,21	1,30

One-Sample Kolmogorov-Smirnov Test

		viskositasminggu4
N		9
Normal Parameters[a,b]	Mean	1,2556
	Std. Deviation	,03046
Most Extreme Differences	Absolute	,128
	Positive	,128
	Negative	-,122
Kolmogorov-Smirnov Z		,384
Asymp. Sig. (2-tailed)		,998

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

viskositasminggu4

Levene Statistic	df1	df2	Sig.
1,217	2	6	,360

ANOVA

viskositasminggu4

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,007	2	,003	27,364	,001
Within Groups	,001	6	,000		
Total	,007	8			

Post Hoc Tests

Homogeneous Subsets

viskositasminggu4

Student-Newman-Keuls[a]

formula	N	Subset for alpha = 0.05		
		1	2	3
formula1	3	1,2233		
formula2	3		1,2533	
formula3	3			1,2900
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

6. Pengaruh Lama Penyimpanan terhadap viskositas

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
viskositas	15	1,2529	,09427	1,03	1,33

One-Sample Kolmogorov-Smirnov Test

		viskositas
N		15
Normal Parameters[a,b]	Mean	1,2529
	Std. Deviation	,09427
Most Extreme Differences	Absolute	,280
	Positive	,207
	Negative	-,280
Kolmogorov-Smirnov Z		1,084
Asymp. Sig. (2-tailed)		,190

a. Test distribution is Normal.

b. Calculated from data.

Oneway

Test of Homogeneity of Variances

viskositas

Levene Statistic	df1	df2	Sig.
2,026	4	10	,166

ANOVA

viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,114	4	,029	28,159	,000
Within Groups	,010	10	,001		
Total	,124	14			

Post Hoc Tests

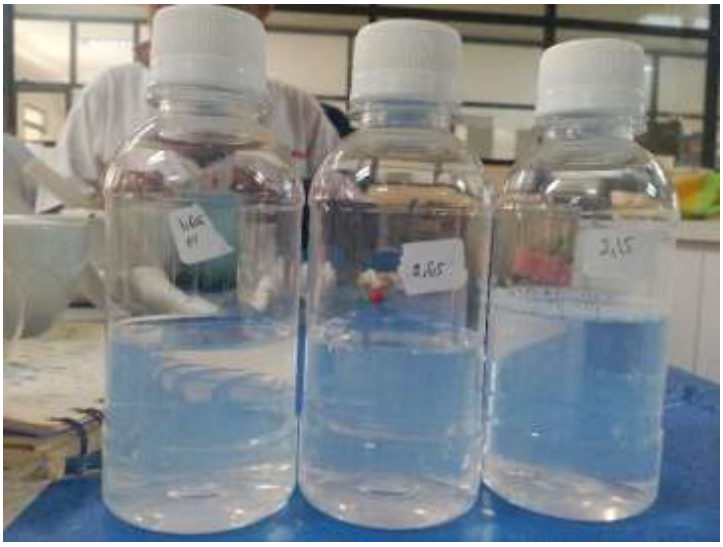
Multiple Comparisons

Dependent Variable: viskositas
Tukey HSD

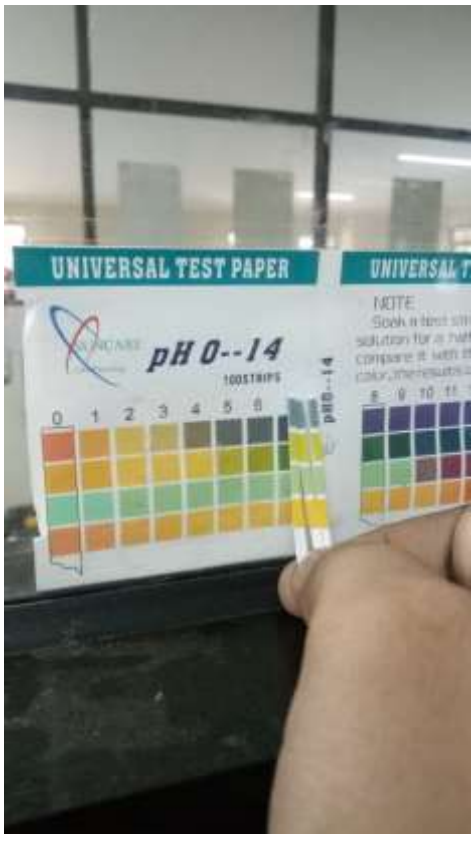
(I) minggu	(J) minggu	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
minggu0	minggu1	-,21233*	,02601	,000	-,2979	-,1267
	minggu2	-,23567*	,02601	,000	-,3213	-,1501
	minggu3	-,22567*	,02601	,000	-,3113	-,1401
	minggu4	-,16900*	,02601	,001	-,2546	-,0834
minggu1	minggu0	,21233*	,02601	,000	,1267	,2979
	minggu2	-,02333	,02601	,892	-,1089	,0623
	minggu3	-,01333	,02601	,984	-,0989	,0723
	minggu4	,04333	,02601	,493	-,0423	,1289
minggu2	minggu0	,23567*	,02601	,000	,1501	,3213
	minggu1	,02333	,02601	,892	-,0623	,1089
	minggu3	,01000	,02601	,995	-,0756	,0956
	minggu4	,06667	,02601	,152	-,0189	,1523
minggu3	minggu0	,22567*	,02601	,000	,1401	,3113
	minggu1	,01333	,02601	,984	-,0723	,0989
	minggu2	-,01000	,02601	,995	-,0956	,0756
	minggu4	,05667	,02601	,262	-,0289	,1423
minggu4	minggu0	,16900*	,02601	,001	,0834	,2546
	minggu1	-,04333	,02601	,493	-,1289	,0423
	minggu2	-,06667	,02601	,152	-,1523	,0189
	minggu3	-,05667	,02601	,262	-,1423	,0289

Lampiran 4. Foto hasil penelitian

1. *Micellar based water* minggu ke-0

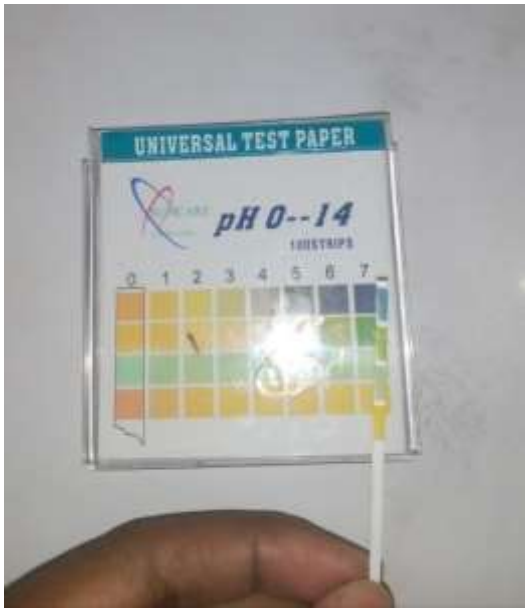


2. Hasil pH minggu ke-0

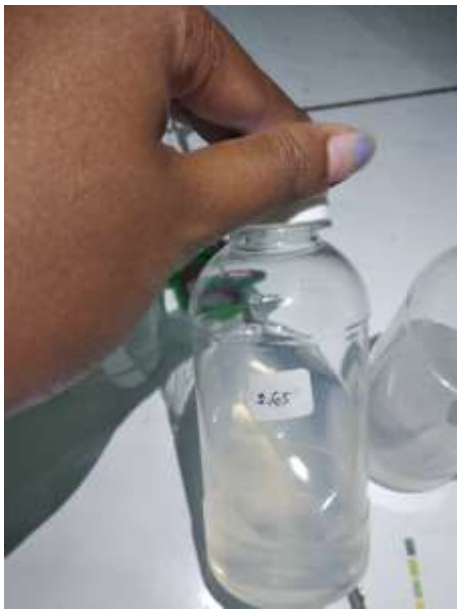


3. Pengamatan minggu ke-1

4. Hasil pH minggu ke-1



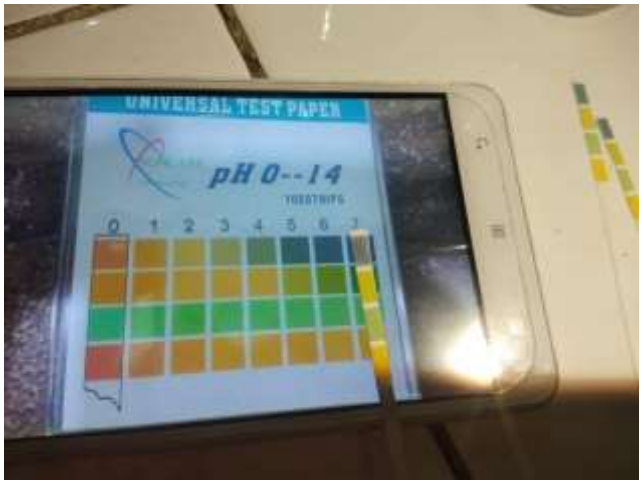
5. Pengamatan minggu ke-2



6. Hasil pH minggu ke-2

7. Pengamatan minggu ke-3

8. Hasil pH minggu ke-3



9. Pengamatan minggu ke-4

10. Hasil pH minggu ke-4