BAB 5
SIMPULAN

5.1. Simpulan

Berdasarkan data penelitian yang telah diinterpretasikan, dapat ditarik kesimpulan :

- Pembuatan tablet lepas lambat klorfeniramin maleat dengan teknik likuisolid menggunakan polimer hidrofilik *Xanthan Gum – Locust Bean Gum* dan tween 80 sebagai pelarut *non volatile* dapat menurunkan laju disolusi klorfeniramin maleat.
- Jumlah tween 80 dan konsentrasi *Xanthan Gum – Locust Bean Gum* berpengaruh signifikan terhadap kekerasan tablet, namun tidak berpengaruh signifikan terhadap *Hausner Ratio, Carr's Index,* kerapuhan tablet dan konstanta laju disolusi.
- Formula optimum tablet klorfeniramin maleat dapat diperoleh dengan jumlah pelarut *non volatile* Tween 80 sejumlah 27,68 mg dan konsentrasi polimer *Xanthan Gum – Locust Bean Gum* sejumlah 11% dan perbandingan masing-masing 50:50. Pemilihan formula optimum tersebut akan memberikan prediksi hasil respon *Hausner Ratio* 1,23; *Carr's Index* 19,0572%; kekerasan tablet 11,3884 Kp; kerapuhan tablet 0,12312%; dan konstanta laju disolusi 0,01001 mg/menit.

5.2. Alur Penelitian Selanjutnya

Dapat dilakukan penelitian lebih lanjut mengenai tablet lepas lambat likuisolid dengan mencari dan membuktikan formula optimum terpilih, kemudian dibandingkan dengan hasil yang secara teoritis.

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LAMPIRAN A

HASIL UJI MUTU FISIK MASSA TABLET

Mutu fisik yang diuji	Replikasi	Formula Tablet Likuisolid Klorfeniramin Maleat				Persyaratan
		FA	FB	FC	FD	
Hausner Ratio	I	1,23	1,22	1,23	1,23	≤ 1,25 (Wells, 1988)
	II	1,25	1,23	1,23	1,25	
	Rata-rata	1,24	1,24	1,23	1,24	
	SD	0,01	0,01	0,00	0,01	
Carr's Index (%)	I	19	18	19	19	18 – 20% = cukup baik (Siregar, 1992)
	II	20	19	19	20	
	Rata-rata	20	19	19	20	
	SD	0,71	0,71	0,00	0,71	

LAMPIRAN B

HASIL UJI KERAGAMAN BOBOT TABLET LIKUISOLID KLORFENIRAMIN MALEAT

Hasil Uji Keragaman Bobot Tablet Formulasi A

No	Replikasi I		Replikasi II	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	500	96,64	490	96,48
2	490	94,71	500	98,45
3	500	96,64	500	98,45
4	490	94,71	500	98,45
5	500	96,64	490	96,48
6	500	96,64	490	96,48
7	500	96,64	490	96,48
8	490	94,71	500	98,45
9	500	96,64	490	96,48
10	500	96,64	490	96,48
Rata-rata	497	96,06	494	97,26
PK (%)	106		103	
SD	0,934		1,017	
KV	0,972		1,045	

Keterangan: PK = Perolehan Kembali
SD = Standart Deviasi
KV = Koefisien Variasi

Hasil Uji Keragaman Bobot Tablet Formulasi B

No	Replikasi I		Replikasi II	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	500	97,43	500	98,78
2	510	99,38	510	100,76
3	500	97,43	490	96,80
4	510	99,38	490	96,80
5	490	95,49	500	98,78
6	500	97,43	510	100,76
7	510	99,38	500	98,78
8	510	99,38	500	98,78
9	500	97,43	510	100,76
10	490	95,49	490	96,80
Rata-rata	502	97,82	500	98,78
PK (%)	101		100	
SD	1,537		1,613	
KV	1,571		1,633	

Hasil Uji Keragaman Bobot Tablet Formulasi C

No	Replikasi I		Replikasi II	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	500	100,27	510	101,04
2	500	100,27	520	103,02
3	500	100,27	500	99,06
4	490	98,27	510	101,04
5	500	100,27	510	101,04
6	510	102,28	500	99,06
7	500	100,27	520	103,02
8	500	100,27	500	99,06
9	510	102,28	500	99,06
10	500	100,27	500	99,06
Rata-rata	501	100,47	507	100,45
PK (%)	100		98	
SD	1,138		1,631	
KV	1,133		1,624	

Hasil Uji Keragaman Bobot Tablet Formulasi D

No	Replikasi I		Replikasi II	
	Bobot Tablet (mg)	**Y (%)**	**Bobot Tablet (mg)**	**Y (%)**
1	510	98,63	490	97,46
2	500	96,70	500	99,45
3	500	96,70	500	99,45
4	510	98,63	500	99,45
5	500	96,70	490	97,46
6	490	94,77	500	99,45
7	500	96,70	490	97,46
8	510	98,63	500	99,45
9	500	96,70	500	99,45
10	510	98,63	490	97,46
Rata-rata	503	97,28	496	98,65
PK (%)	101		102	
SD	1,305		1,027	
KV	1,342		1,041	

LAMPIRAN C

HASIL UJI KESERAGAMAN KANDUNGAN TABLET LIKUISOLID KLORFENIRAMIN MALEAT

Hasil uji Keseragaman Kandungan Tablet Formula A Replikasi I

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,161	11,88	498,3	11,96	99,37
0,164	12,09	500,8	12,02	100,58
0,159	11,75	497,4	11,94	98,40
0,165	12,16	498,2	11,96	101,68
0,157	11,61	500,4	12,01	96,67
0,158	11,68	500,5	12,01	97,22
0,164	12,09	498,6	11,97	101,02
0,159	11,75	503,3	12,08	97,25
0,162	11,95	495,8	11,90	100,44
0,163	12,02	492,4	11,82	101,72
			Rata-rata	99,43
			SD	1,93
			KV	1,94

Hasil Uji Keseragaman Kandungan Tablet Formula A Replikasi II

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,161	11,88	498,3	11,96	99,37
0,155	11,47	499,7	11,99	95,66
0,153	11,34	495,1	11,88	95,40
0,162	11,95	498,5	11,96	99,90
0,159	11,75	501,8	12,04	97,54
0,159	11,75	496,8	11,92	98,52
0,162	11,95	500,7	12,02	99,46
0,158	11,68	501,5	12,04	97,03
0,162	11,95	495,6	11,89	100,48
0,158	11,68	499,2	11,98	97,47
			Rata-rata	98,08
			SD	1,75
			KV	1,79

Hasil Uji Keseragaman Kandungan Tablet Formula B Replikasi I

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,157	11,61	500,1	12,00	96,73
0,159	11,75	500,2	12,00	97,85
0,16	11,82	500,7	12,02	98,32
0,165	12,16	489,4	11,75	103,51
0,158	11,68	497,9	11,95	97,73
0,159	11,75	498,8	11,97	98,12
0,162	11,95	499,1	11,98	99,78
0,161	11,88	501,6	12,04	98,71
0,158	11,68	495,2	11,88	98,26
0,162	11,95	501,8	12,04	99,24
			Rata-rata	98,83
			SD	1,83
			KV	1,87

Hasil Uji Keseragaman Kandungan Tablet Formula B Replikasi II

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,155	11,34	499,9	11,9976	95,62
0,155	11,47	501,7	12,0408	95,28
0,161	11,88	502,8	12,0672	98,48
0,159	11,75	501,4	12,0336	97,61
0,158	11,68	496,2	11,9088	98,06
0,162	11,95	497,6	11,9424	100,08
0,164	12,09	501,3	12,0312	100,48
0,159	11,75	501,8	12,0432	97,54
0,162	11,95	500,9	12,0216	99,42
0,159	11,75	500,5	12,0120	97,79
			Rata-rata	98,04
			SD	1,71
			KV	1,74

Hasil Uji Keseragaman Kandungan Tablet Formula C Replikasi I

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,158	11,47	499,4	11,99	97,43
0,157	11,61	499,6	11,99	96,82
0,161	11,88	500,2	12,00	98,99
0,163	12,02	501,5	12,04	99,87
0,159	11,34	498,6	11,97	98,10
0,159	11,75	500,7	12,02	97,75
0,162	11,95	501,9	12,05	99,22
0,162	11,82	501,3	12,03	99,34
0,157	11,54	498,7	11,97	97,00
0,158	11,68	500,3	12,01	97,26
			Rata-rata	98,18
			SD	1,09
			KV	1,11

Hasil Uji Keseragaman Kandungan Tablet Formula C Replikasi II

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,157	11,61	499,1	11,98	96,92
0,159	11,75	498,3	11,96	98,22
0,16	11,82	499,2	11,98	98,62
0,162	11,95	500,2	12,00	99,56
0,156	11,54	498,6	11,97	96,45
0,158	11,68	499,1	11,98	97,49
0,159	11,75	499,3	11,98	98,03
0,158	11,68	498,1	11,95	97,69
0,165	12,16	501,5	12,04	101,01
0,158	11,68	487,9	11,71	99,73
			Rata-rata	98,37
			SD	1,39
			KV	1,42

Hasil Uji Keseragaman Kandungan Tablet Formula D Replikasi I

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,157	11,61	498,7	11,97	97,00
0,161	11,88	499,6	11,99	99,11
0,159	11,75	499,5	11,99	97,99
0,158	11,68	498,6	11,97	97,59
0,156	11,54	499,2	11,98	96,33
0,151	11,20	487,6	11,70	95,70
0,158	11,68	498,6	11,97	97,59
0,161	11,88	497,6	11,94	99,51
0,162	11,95	498,4	11,96	99,92
0,165	12,16	497,9	11,95	101,74
			Rata-rata	98,25
			SD	1,83
			KV	1,86

Hasil Uji Keseragaman Kandungan Tablet Formula D Replikasi II

Abs	C sampel (µg/mL)	W sampel (mg)	C teoritis (µg/mL)	% Perolehan kembali
0,157	11,61	497,7	11,94	97,19
0,161	11,88	498,6	11,97	99,31
0,163	12,02	499,7	11,99	100,23
0,158	11,68	498,9	11,97	97,53
0,156	11,54	497,2	11,93	96,72
0,157	11,61	497,6	11,94	97,21
0,158	11,68	498,2	11,96	97,67
0,159	11,75	497,5	11,94	98,38
0,162	11,95	489,4	11,75	101,76
0,155	11,47	497,9	11,95	96,01
			Rata-rata	98,20
			SD	1,76
			KV	1,79

LAMPIRAN D

HASIL UJI KEKERASAN TABLET LIKUISOLID KLORFENIRAMIN MALEAT

REPLIKASI I

No	Kekerasan Tablet Likuisolid Klorfeniramin Maleat (Kp)			
	Formula A	Formula B	Formula C	FormulaD
1	12,8	11,9	11,2	7,4
2	10,7	12,1	12,3	6,8
3	11,4	11,3	9,8	7,1
4	10,8	12,6	10,4	6,9
5	11,4	12	12,7	7,1
6	12,9	11,2	10,2	6,8
7	12,5	11,8	11,5	6,2
8	11,8	12,6	10,6	7,1
9	10,9	11,4	10,9	7,9
10	12,6	12,9	10,7	7,4
Rata-rata ± SD	11,78 ± 0,86	11,98 ± 0,58	11,03±0,92	7,07± 0,45
KV	7,31	4,88	8,31	6,40

REPLIKASI II

No	Kekerasan Tablet Likuisolid Klorfeniramin Maleat(Kp)			
	Formula A	Formula B	Formula C	Formula D
1	13,8	11,5	13,3	8,2
2	11,7	14,6	14,5	7,6
3	11,7	13,5	13,7	7,8
4	12,4	13,3	12,5	5
5	11,1	12,5	12	7,2
6	11,9	12,9	11,6	6,5
7	13,5	11,1	12,1	6,9
8	12,8	12,2	12,6	7,3
9	11,9	12,5	12,2	7,8
10	12,6	12,3	12	7,2
Rata-rata ± SD	12,34±0,85	12,64 ±1,01	12,65 ±0,91	7,15 ±0,90
KV	6,89	7,96	7,18	12,58

LAMPIRAN E

HASIL UJI KERAPUHAN TABLET LIKUISOLID KLORFENIRAMIN MALEAT

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata-rata ±SD	KV
A	I	9,79	9,79	0,00	0,05 ± 0,07	141,42
	II	9,7	9,69	0,10		
B	I	10,1	10,1	0,00	0,00 ± 0,00	0,0
	II	10,01	10,01	0,00		
C	I	10,08	10,07	0,10	0,10 ± 0,00	1,60
	II	10,31	10,3	0,10		
D	I	9,9	9,86	0,40	0,30 ± 0,14	47,71
	II	9,99	9,97	0,20		

LAMPIRAN F

HASIL KLORFENIRAMIN MALEAT TERLARUT DALAM TWEEN 80 SELAMA 24 JAM

Absorbansi	Konsentrasi (µg/mL)	Dalam 50 mL(µg)	Konsentrasi sesungguhnya (µg/mL)	Rata-rata ± SD	Kelarutan
0,11	7,67	383,5	15.340	16.386 ± 0,45	1:61
0,121	8,49	424,5	16.980		
0,12	8,42	421	16.840		

LAMPIRAN G

HASIL PENETAPAN KADAR TABLET LIKUISOLID KLORFENIRAMIN MALEAT

FORMULA A

Replikasi	Massa (mg)	Absorbansi	C sampel (ppm)	C teoritis (ppm)	% Perolehan kembali	Rata-rata	SD	KV
1	500,13	0,164	12,09	12,00	101	101,80	0,77	0,75
2	500,41	0,166	12,23	12,01	102			

FORMULA B

Replikasi	Massa (mg)	Absorbansi	C sampel (ppm)	C teoritis (ppm)	% Perolehan kembali	Rata-rata	SD	KV
1	500,13	0,165	12,16	12,00	101	100,43	1,21	1,20
2	500,1	0,162	11,95	12,00	100			

FORMULA C

Replikasi	Massa (mg)	Absorbansi	C sampel (ppm)	C teoritis (ppm)	% Perolehan kembali	Rata-rata	SD	KV
1	500,2	0,163	12,02	12,00	100	98,99	1,61	1,63
2	500,2	0,159	11,75	12,00	98			

FORMULA D

Replikasi	Massa (mg)	Absorbansi	C sampel (ppm)	C teoritis (ppm)	% Perolehan kembali	Rata-rata	SD	KV
1	500,11	0,165	12,16	12,00	101	101,87	0,82	0,81
2	500,02	0,167	12,29	12,00	102			

LAMPIRAN H

HASIL UJI DISOLUSI TABLET LIKUISOLID KLORFENIRAMIN MALEAT

FORMULA A

Replikasi	t (menit)	A	C (µg/mL)	Wt (mg)	% obat terlepas
	30	0,062	3,46	3,12	25,70
	60	0,087	5,06	4,56	37,60
	120	0,075	4,29	3,87	31,89
	180	0,09	5,26	4,73	39,03
	240	0,109	6,47	5,83	48,08
I	300	0,127	7,63	6,87	56,65
	360	0,132	7,95	7,15	59,03
	420	0,146	8,85	7,96	65,69
	480	0,152	9,23	8,31	68,55
	540	0,156	9,49	8,54	70,45
	600	0,156	9,49	8,54	70,45
	660	0,157	9,55	8,60	70,93
	720	0,158	9,62	8,65	71,40
	30	0,069	3,91	3,52	28,75
	60	0,097	5,71	5,13	41,95
	120	0,1	5,90	5,31	43,36
	180	0,103	6,09	5,48	44,78
	240	0,107	6,35	5,71	46,66
II	300	0,121	7,24	6,52	53,26
	360	0,132	7,95	7,15	58,45
	420	0,138	8,33	7,50	61,27
	480	0,143	8,65	7,79	63,63
	540	0,147	8,91	8,02	65,52
	600	0,157	9,55	8,60	70,23
	660	0,152	9,23	8,31	67,87
	720	0,155	9,42	8,48	69,29

FORMULA B

Replikasi	t (menit)	A	C (µg/mL)	Wt (mg)	%obat terlepas
	30	0,07	3,97	3,58	29,51
	60	0,088	5,13	4,62	38,08
	120	0,096	5,64	5,08	41,89
	180	0,098	5,77	5,19	42,84
	240	0,108	6,41	5,77	47,60
I	300	0,13	7,82	7,04	58,07
	360	0,134	8,08	7,27	59,98
	420	0,144	8,72	7,85	64,74
	480	0,168	10,26	9,23	76,16
	540	0,176	10,77	9,69	79,97
	600	0,187	11,47	10,33	85,21
	660	0,188	11,54	10,38	85,68
	720	0,186	11,41	10,27	84,73
	30	0,063	3,53	3,17	26,44
	60	0,074	4,23	3,81	31,73
	120	0,09	5,26	4,73	39,42
	180	0,103	6,09	5,48	45,67
	240	0,121	7,24	6,52	54,33
II	300	0,137	8,27	7,44	62,02
	360	0,149	9,04	8,13	67,79
	420	0,151	9,17	8,25	68,75
	480	0,153	9,29	8,37	69,71
	540	0,161	9,81	8,83	73,56
	600	0,159	9,68	8,71	72,60
	660	0,185	11,35	10,21	85,10
	720	0,203	12,50	11,25	93,75

FORMULA C

Replikasi	t (menit)	A	C (µg/mL)	Wt (mg)	% obat terlepas
	30	0,089	5,19	4,67	38,94
	60	0,113	6,73	6,06	50,48
	120	0,125	7,50	6,75	56,25
	180	0,137	8,27	7,44	62,02
	240	0,139	8,40	7,56	62,98
I	300	0,163	9,94	8,94	74,52
	360	0,169	10,32	9,29	77,40
	420	0,171	10,45	9,40	78,37
	480	0,191	11,73	10,56	87,98
	540	0,199	12,24	11,02	91,83
	600	0,2	12,31	11,08	92,31
	660	0,187	11,47	10,33	86,06
	720	0,179	10,96	9,87	82,21
	30	0,068	3,85	3,46	29,43
	60	0,119	7,12	6,40	54,45
	120	0,106	6,28	5,65	48,08
	180	0,115	6,86	6,17	52,49
	240	0,124	7,44	6,69	56,91
II	300	0,149	9,04	8,13	69,17
	360	0,151	9,17	8,25	70,15
	420	0,196	12,05	10,85	92,23
	480	0,202	12,44	11,19	95,17
	540	0,203	12,50	11,25	95,66
	600	0,195	11,99	10,79	91,74
	660	0,201	12,37	11,13	94,68
	720	0,201	12,37	11,13	94,68

FORMULA D

Replikasi	t (menit)	A	C (µg/mL)	Wt (mg)	% obat terlepas
	30	0,064	3,59	3,23	26,66
	60	0,087	5,06	4,56	37,60
	120	0,089	5,19	4,67	38,56
	180	0,095	5,58	5,02	41,41
	240	0,127	7,63	6,87	56,65
I	300	0,121	7,24	6,52	53,79
	360	0,128	7,69	6,92	57,12
	420	0,128	7,69	6,92	57,12
	480	0,15	9,10	8,19	67,59
	540	0,152	9,23	8,31	68,55
	600	0,144	8,72	7,85	64,74
	660	0,156	9,49	8,54	70,45
	720	0,179	10,96	9,87	81,40
	30	0,061	3,40	3,06	24,98
	60	0,064	3,59	3,23	26,40
	120	0,073	4,17	3,75	30,64
	180	0,078	4,49	4,04	32,99
	240	0,102	6,03	5,42	44,31
II	300	0,114	6,79	6,12	49,96
	360	0,128	7,69	6,92	56,56
	420	0,131	7,88	7,10	57,98
	480	0,142	8,59	7,73	63,16
	540	0,156	9,49	8,54	69,76
	600	0,147	8,91	8,02	65,52
	660	0,144	8,72	7,85	64,10
	720	0,139	8,40	7,56	61,75

LAMPIRAN I

CONTOH PERHITUNGAN

Contoh perhitungan Carr's Indexdan *Hausner Ratio*:

Formula A :

Berat gelas = 150,25g (W1)
Berat gelas + granul = 191,83g (W2)
V1 = 100 mL

V2 = 81 mL

Bj nyata $= \frac{(W_2 - W_1)}{V_1} = \frac{(191,83-150,25)}{81} = 0,513$

Bj mampat $= \frac{(W_2 - W_1)}{V_2} = \frac{(191,83-150,25)}{100} = 0,416$

% kompresibilitas $= \left(1 - \frac{\text{Bj.nyata}}{\textit{Bj mampat}}\right) \text{x } 100\% = 19\%$

Formula A:

Hausner Ratio $= \frac{Bjmampat}{Bjnyata} = 1,23$

Contoh perhitungan akurasi & presisi:

%	Bahan aktif	Air Ad	Pipet (mL)	Air Ad	Konsentrasi (ppm)
100	12	100	1	10	12

Absorbansi = 0,163 → y = 0,0146x – 0,0125

Konsentrasi sebenarnya = 12,02 ppm

Konsentrasi teoritis = 12ppm

$$\% \text{ perolehan kembali} = \frac{\text{konsentras i sebenarnya}}{\text{konsentras i teoritis}} \text{ x } 100\%$$

= (12,02/12) x 100%

= 100,17 %

Untuk menghitung % KV = $\frac{SD}{\overline{X}} x 100\%$

$= \frac{1,14}{100,17} x\ 100\%$

= 1,138 %

Contoh perhitungan % obat terlepas:

$$\% \text{ obat terlepas} = \frac{Wt}{\frac{PK}{100} \times dosis} \times 100\%$$

Formula A replikasi 1 pada t = 30 menit

$$\% \text{ obat terlepas} = \frac{3,12}{\frac{102,94}{100} \times 12} \times 100\%$$

= 25,257%

Contoh Perhitungan Jumlah Klorfeniramin Maleat terlarut dalam Tween 80:

Abs	Konsentrasi (µg/mL)	Dalam 50 mL(µg)	Konsentrasi sesungguhnya (µg/mL)	Kelarutan
0,11	7,67	383,5	15,340	1:61
0,121	8,49	424,5	16,980	
0,12	8,42	421	16,840	

Absorbansi = 0,11 → y = 0,0134x + 0,0072

Konsentrasi = 7,67µg/mL

KM 10,0020 g ad 25 mL → pipet 25µL ad 50 mL

Dalam 50 mL→7,67 µg/mL x 50 mL= 383,5 µg

Jadi dalam 25 mL tween 80

$$= \frac{25\text{mL} \times 1000}{25\mu\text{L}} \times 409{,}7\mu\text{g} = 409.700\mu\text{g}/25\text{ mL} \rightarrow 16.386\mu\text{g/mL}$$

Kelarutan = 1,000,000/16,386 µg/mL = 1 gram dalam 61 mL

Contoh Perhitungan Dosis Klorfeniramin Maleat:

- A = Cp x Vd

= $18{,}10^{-5}$mg/mL x 3200 mL

= 0,576 mg

- $K = \frac{0{,}693}{2} = 0{,}3465$/jam

- *Rate out* = Ke x A

= 0,3465/jam x 0,576 mg

= 0,19404 mg/jam

- *Release Rate* = $\frac{\text{Rate out}}{F}$

$$= \frac{0{,}1996\text{mg/jam}}{0{,}25}$$

= 0,798 mg/jam = 0,013 mg/ menit

(konstanta laju disolusi)

Rentang: Cp = 8.10^{-5}mg-$18{,}5 .10^{-5}$ mg/mL

VD = 2,5-3,2 L/kg

- Dirancang untuk 12 jam:

DM= 12 jam x *release rate*

= 12 x 0,798 mg/jam

= 9,576

$$LD = \frac{A}{F} = \frac{0,576}{0,25} = 2,304$$

- Jumlah dosis = DM + LD

= 9,576 + 2,304

= 11,88 mg ~ 12 mg

Contoh Perhitungan konversi dari Nilai Sesungguhnya Menjadi Bentuk yang Berada dalam Rentang Angka Baku:

Misal: tingkat Xanthan Gum = -1 , tingkat rendah= 10, tingkat tinggi= 20

$$X' = \frac{X - \text{rata - rata 2 level}}{1/2 \text{ x perbedaan level}} \rightarrow$$

$$-1 = \frac{X-(10+20)}{\frac{1}{2} x (20-10)} \rightarrow X = 25$$

Contoh Perhitungan Hasil teoritis:

Misal : respon *Carr's Index*pada formula A

$Y = B_o + B_a X_A + B_b X_B + B_{ab} X_A X_B$

$Y = 19,13 + 0,13\ X_A - 0,13 X_B + 0,38 X_A X_B$

$Y = 19,13 + 0,13\ (-1) - 0,13(-1) + 0,38(-1)(-1)$

Y = 19,51

LAMPIRAN J

HASIL UJI F KURVA BAKU

KURVA BAKU AKUADES

REPLIKASI I

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
6,03	0,078	36,361	0,006	0,470
8,04	0,105	64,642	0,011	0,844
10,05	0,132	101,003	0,017	1,327
12,06	0,162	145,444	0,026	1,954
14,07	0,195	197,965	0,038	2,744
16,08	0,221	258,566	0,049	3,554
18,09	0,254	327,248	0,065	4,595

Persamaan Regresi pada replikasi 1 → y = 0,0146x – 0,0125

r_{hitung}/r_{tabel}: 0,9995/0,754

REPLIKASI II

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
6,04	0,079	36,433	0,006	0,477
8,05	0,107	64,770	0,011	0,861
10,06	0,133	101,204	0,018	1,338
12,07	0,161	145,733	0,026	1,944
14,08	0,196	198,359	0,038	2,760
16,10	0,224	259,081	0,050	3,606
18,11	0,251	327,900	0,063	4,545

Persamaan Regresi pada replikasi 2 → y = 0,0144x - 0,0098

r_{hitung}/r_{tabel}: 0,9994 /0,754

REPLIKASI III

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
6,05	0,082	36,578	0,007	0,496
8,06	0,109	65,028	0,012	0,879
10,08	0,136	101,606	0,018	1,371
12,10	0,160	146,313	0,026	1,935
14,11	0,199	199,149	0,040	2,808
16,13	0,227	260,112	0,052	3,661
18,14	0,256	329,205	0,066	4,645

Persamaan Regresi pada replikasi 3 → y = 0,0145x - 0,0089

r_{hitung}/r_{tabel}: 0,9985 /0,754

	ΣX^2	ΣXY	ΣY^2	N	Residual SS	RDF
Replikasi I	1131,228	15,487	0,212	7	0,000133911	5
Replikasi II	1133,480	15,531	0,213	7	9,67107E-05	5
Replikasi III	1137,992	15,795	0,219	7	0,000126911	5
Pooled regression					0,000357532	15
Common regression	3402,7000	46,8130	0,6444		0,000383226	15

F hitung < F tabel $_{0,05\ (2,15)}$ = 0,2695< 3,68.

Karena F hitung lebih kecil dari F tabel maka tidak ada perbedaan bermakna antar persamaan regresi.

KURVA BAKU DAPAR

REPLIKASI I

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
1	0,026	1,000	0,001	0,026
4,01	0,071	16,080	0,005	0,285
7,01	0,108	49,140	0,012	0,757
10,02	0,174	100,400	0,030	1,743
13,03	0,203	169,781	0,041	2,645
16,03	0,263	256,961	0,069	4,216
19,04	0,311	362,522	0,097	5,921

Persamaan Regresi pada replikasi 1 → y = 0,0156x – 0,0080

r_{hitung}/r_{tabel}: 0,9982/0,707

REPLIKASI II

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
1	0,034	1,000	0,001	0,034
4,01	0,079	16,080	0,006	0,317
7,01	0,099	49,140	0,010	0,694
10,02	0,139	100,400	0,019	1,393
13,03	0,186	169,781	0,035	2,424
16,03	0,214	256,961	0,046	3,430
19,04	0,252	362,522	0,064	4,798

Persamaan Regresi pada replikasi 2 → y = 0,0115x - 0,0264

r_{hitung}/r_{tabel}: 0,9963 /0,707

REPLIKASI III

KONSENTRASI	ABSORBANSI	X^2	Y^2	XY
1,01	0,038	1,020	0,001	0,038
4,02	0,081	16,160	0,007	0,326
7,04	0,106	49,562	0,011	0,746
10,06	0,145	101,204	0,021	1,459
13,08	0,199	171,086	0,040	2,603
16,1	0,223	259,210	0,050	3,590
19,11	0,278	365,192	0,077	5,313

Persamaan Regresi pada replikasi 3 → y = 0,0145x - 0,0073

r_{hitung}/r_{tabel}: 0,9906 /0,707

	ΣX^2	ΣXY	ΣY^2	N	Residual SS	RDF
Replikasi 1	1441,646	23,242	0,375	8	0,000474732	6
Replikasi 2	1441,646	19,040	0,253	8	0,001839634	6
Replikasi 3	339,032	5,172	0,080	8	0,000971415	6
pooled regression				24	0,003285781	18
common regression	3222,3233	47,4539	0,7083		0,009512784	17

F hitung < F tabel $_{0,05\,(2,18)}$ = 0,0391<3,55.

Karena F hitung lebih kecil dari F tabel maka tidak ada perbedaan bermakna antar persamaan regresi.

LAMPIRAN K

SERTIFIKAT ANALISIS
KLORFENIRAMIN MALEAT

P.T. Sri Aman Corp.
JAKARTA

SUPRIYA LIFESCIENCE LTD.
(Formerly known as **Supriya Chemicals**)

QCA-F-02
Rev. No. 01

CERTIFICATE OF ANALYSIS

Name	:	**Chlorpheniramine Maleate USP**			
Manufacture	:	**Supriya Lifescience Ltd.**			
Batch No.	:	SLL/C/0111016	A.R.Number	:	SLL/QC/FP/11/0074
Batch Size	:	1000.0 kgs	Drug License No.	:	KD-129
Date of Manufacturing	:	Jan-2011	Date of Sampling	:	29/01/2011
Date of Expiry	:	Dec-2015	Date of Release	:	30/01/2011
Quantity Sampled	:	60 gms	Sampled By	:	SUN

Tests	Specification & Limits	Results
Description	White, odourless, crystalline powder	White, odourless,Crystalline powder
Solublity	Freely soluble in water, soluble in alcohol ,and in chloroform ,slightly soluble in ether , and in benzene	Freely soluble in water, soluble in alcohol, and in chloroform, slightly soluble in ether, and in benzene
Identification: IR Absorption	The infra red absorption spectrum should be concordant with the reference spectrum of chlorpheniramine maleate	The infra red absorption spectrum is concordant with the reference spectrum of chlorpheniramine maleate
Melting Range	130°C to 135°C	133-134°C
Loss on Drying	Not more than 0.5%	0.22%
Residue on Ignition	Not more than 0.2%	0.05%
Related Compounds	Total impurity not more than 2.0%	0.52%
Assay (on dried basis)	NLT 98.0% and NMT 100.5%	99.72%
Residual Solvents		
Isopropanol	Not more than 5000ppm	438ppm
O-xylene	Not more than 2170ppm	Not detected
Methanol	Not more than 3000ppm	Not detected

REMARKS: Chlorpheniramine maleate complies / ~~does not comply~~ with respect to above mentioned test as per USP 32 Specification

Analysed By	Checked By	Quality Control Manager

Corporate office : 207/208, Udyog Bhavan, Sonawala Road, Goregaon (East), Mumbai – 400 063. Maharashtra, India.
Tel: +91 22 40332727 / 66942507 Fax : +91 22 26860011
E-mail: supriya@supriyalifescience.com Website: www.supriyalifescience.com

Factory : A 5/2, Lote Parshuram Industrial Area, M.I.D.C., Tal.- Khed, Dist.- Ratnagiri, 415 722, Maharashtra, India.
Tel: +91 2356 272299 Fax : +91 2356 272178
E-mail: factory@supriyalifescience.com

GOVT. RECOGNISED EXPORT HOUSE

AVICEL PH-102

AsahiKASEI
ASAHI KASEI CHEMICALS

Date: 26-SEP-2012
Issued by manufacturer

1-105 Kanda Jinbocho, Chiyoda-ku, TOKYO 101-8101, JAPAN
TEL +81-(0)3-3296-3361 FAX +81-(0)3-3296-3467
Manufacturing site: 304, Mizushiri-machi, Nobeoka-city, Miyazaki 882-0015, Japan

3035/BB/XI/12
3031/BB/XI/12

YOUR NO.: B7ME-12-5298-0089

CERTIFICATE OF ANALYSIS

Compendial name: Microcrystalline Cellulose, NF, Ph. Eur., JP

Trade name : CEOLUS®

Grade : PH-102 **Lot No. 2291 (320bags)**

Manufacturing Date: 05-SEP-2012
Re-evaluation Date: 05-SEP-2015

Organic Solvent: not used in our process

Compendial Standards	Specifications	Lot Analysis
Description	Passes	Passes
Identification	Passes	Passes
Degree of polymerization	100 - 300	Passes
Loss on drying (%)	2.0 - 5.0	4.0
Water-soluble substances (mg)	NMT 12.5	6.2
Ether-soluble substances (mg)	NMT 5.0	0.6
Conductivity (μS/cm)	NMT 75	24
Heavy metals (ppm)	NMT 10	NMT 10
Solubility	Passes	Passes
Residue on ignition (%)	NMT 0.1	0.00
Bulk density (g/cm^3)	0.28 - 0.33	0.303
pH	5.0 - 7.5	6.2
Total aerobic microbial count (cfu/g)	NMT 1000	Passes
Total combined molds and yeasts count (cfu/g)	NMT 100	Passes
Escherichia coli	None Present	None Present
Salmonella species	None Present	None Present
Pseudomonas Aeruginosa	None Present	None Present
Staphylococcus Aureus	None Present	None Present
ASAHI Standards		
Particle size, wt. % >250 μm (60 mesh)	LT 8.0	0.8
Particle size, wt. % >150 μm (100 mesh)	20 - 40	33

NMT --Not More Than; LT --Less Than
We certify that the product complies with the standards of the NF, Ph. Eur., JP.
Storage conditions: Store at ambient conditions. Keep containers sealed; material is hygroscopic.

P.T. WARIS
JAKARTA

Re-evaluation Date: Three years after manufacturing, if stored as recommended.
Asahi Kasei Chemicals recommends that the customer's quality control unit may re-evaluate the quality of this material at the given time e.g. for loss on drying and extend the shelf life of this lot on its own responsibility.

Shuji OMISHI
Manager
Quality Assurance Section
CEOLUS Production Department

Donda Siregar, S. Farm., Apt.
SP. No. KP. 01.03.1.3.0661
Apoteker Penanggung Jawab

LAMPIRAN L

TABEL UJI F

TABEL DISTRIBUSI F UNTUK 5% DAN 1%

Baris atas untuk taraf signifikan 5%
Baris bawah untuk taraf signifikan 1%

V_2 = dk penyebut	V_1 = dk pembilang																						
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
1	161	200	216	225	230	234	237	239	241	242	243	244	245	246	248	249	250	251	252	253	253	254	254	254
	4052	4999	5403	5625	5764	5859	5928	5961	6022	6056	6082	6106	6142	61,69	6208	6234	6258	6286	6302	6323	6334	6352	6361	6366
2	18,51	19,00	19,16	19,25	19,30	19,33	19,36	19,37	19,38	19,39	19,40	19,41	19,42	19,43	19,44	19,45	19,46	19,47	19,47	19,48	19,49	19,49	19,50	19,50
	98,49	99,01	99,17	99,25	99,30	99,33	99,34	99,36	97,38	99,40	99,41	99,42	99,43	99,44	99,45	99,46	99,47	99,48	99,48	99,49	99,49	99,49	99,50	99,50
3	10,13	9,55	9,28	9,12	9,01	8,94	8,88	8,84	8,81	8,78	8,76	8,74	8,71	8,69	8,66	8,64	8,62	8,60	8,58	8,57	8,56	8,54	8,54	8,53
	34,12	30,81	29,46	28,71	28,24	27,91	27,67	27,49	27,34	27,23	27,13	27,05	26,92	26,83	26,69	26,60	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	6,00	5,96	5,93	5,91	5,87	5,84	5,80	5,77	5,74	5,71	5,70	5,68	5,66	5,65	5,64	5,53
	21,20	18,00	16,69	15,98	15,52	15,21	14,98	14,80	14,66	14,54	14,45	14,37	14,24	14,15	14,02	13,93	13,83	13,74	13,69	13,61	13,57	13,52	13,48	13,46
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,78	4,74	4,70	4,68	4,64	4,60	4,56	4,53	4,50	4,46	4,44	4,42	4,40	4,38	4,37	4,36
	16,26	13,27	12,06	11,39	10,97	10,67	10,45	10,27	10,15	10,05	9,96	9,89	9,77	9,68	9,55	9,47	9,38	9,29	9,24	9,17	9,13	9,07	9,04	9,02
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,10	4,06	4,03	4,00	3,96	3,92	3,87	3,84	3,81	3,77	3,75	3,72	3,71	3,69	3,68	3,67
	13,74	10,92	9,78	9,15	8,75	8,47	8,26	8,10	7,98	7,87	7,79	7,72	7,60	7,52	7,39	7,31	7,23	7,14	7,09	7,02	6,99	6,94	6,90	6,88
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,68	3,63	3,60	3,57	3,52	3,49	3,44	3,41	3,38	3,34	3,32	3,29	3,28	3,25	3,24	3,23
	12,25	9,55	8,45	7,85	7,46	7,19	7,00	6,84	6,71	6,62	6,54	6,47	6,35	6,27	6,15	6,07	5,98	5,90	5,85	5,78	5,75	5,70	5,67	5,65
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,39	3,34	3,31	3,28	3,23	3,20	3,15	3,12	3,08	3,05	3,03	3,00	2,98	2,96	2,94	2,93
	11,26	8,65	7,59	7,01	6,63	6,37	6,19	6,03	5,91	5,82	5,74	5,67	5,56	5,48	5,36	5,28	5,20	5,11	5,06	5,00	4,96	4,91	4,88	4,86
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,18	3,13	3,10	3,07	3,02	2,98	2,93	2,90	2,86	2,82	2,80	2,77	2,76	2,73	2,72	2,71
	10,56	8,02	6,99	6,42	6,06	5,80	5,62	5,47	5,35	5,26	5,18	5,11	5,00	4,92	4,80	4,73	4,61	4,56	4,51	4,45	4,41	4,36	4,33	4,34

V_2 = dk penyebut	V_1 = dk pembilang																					
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	3,02	2,97	2,94	2,91	2,86	2,82	2,77	2,74	2,70	2,67	2,64	2,61	2,59	2,56	2,55	2,54
	10,04	7,56	6,55	5,99	5,64	5,39	5,21	5,06	4,95	4,85	4,78	4,71	4,60	4,52	4,41	4,33	4,25	4,17	4,12	4,05	4,01	3,96	3,93	3,91
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,90	2,86	2,82	2,79	2,74	2,70	2,65	2,61	2,57	2,53	2,50	2,47	2,45	2,42	2,41	2,40
	9,65	7,20	6,22	5,67	5,32	5,07	4,88	4,74	4,63	4,54	4,46	4,40	4,29	4,21	4,10	4,02	3,94	3,86	3,80	3,74	3,70	3,66	3,62	3,60
12	4,75	3,88	3,49	3,26	3,11	3,00	2,92	2,85	2,80	2,76	2,72	2,69	2,64	2,60	2,54	2,50	2,46	2,42	2,40	2,36	2,35	2,32	2,31	2,30
	9,33	6,93	5,95	5,41	5,06	4,82	4,65	4,50	4,39	4,30	4,22	4,16	4,05	3,98	3,86	3,78	3,70	3,61	3,56	3,49	3,46	3,41	3,38	3,36
13	4,67	3,80	3,41	3,18	3,02	2,92	2,84	2,77	2,72	2,67	2,63	2,60	2,55	2,51	2,46	2,42	2,38	2,34	2,32	2,28	2,26	2,24	2,22	2,21
	9,07	6,70	5,74	5,20	4,86	4,62	4,44	4,30	4,19	4,10	4,02	3,96	3,85	3,78	3,67	3,59	3,51	3,42	3,37	3,30	3,27	3,21	3,18	3,16
14	4,60	3,74	3,34	3,11	2,96	2,85	2,77	2,70	2,65	2,60	2,56	2,53	2,48	2,44	2,39	2,35	2,31	2,27	2,24	2,21	2,19	2,16	2,14	2,13
	8,86	6,51	5,56	5,03	4,69	4,46	4,28	4,14	4,03	3,94	3,86	3,80	3,70	3,62	3,51	3,43	3,34	3,26	3,21	3,14	3,11	3,06	3,02	3,00
15	4,54	3,68	3,29	3,06	2,90	2,79	2,70	2,64	2,59	2,55	2,51	2,48	2,43	2,39	2,33	2,29	2,25	2,21	2,18	2,15	2,12	2,10	2,08	2,07
	8,68	6,36	5,42	4,89	4,56	4,32	4,14	4,00	3,89	3,80	3,73	3,67	3,56	3,48	3,36	3,29	3,20	3,12	3,07	3,00	2,97	2,92	2,89	2,87
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,54	2,49	2,45	2,42	2,37	2,33	2,28	2,24	2,20	2,16	2,13	2,09	2,07	2,04	2,02	2,01
	8,53	6,23	5,29	4,77	4,44	4,20	4,03	3,89	3,78	3,69	3,61	3,55	3,45	3,37	3,25	3,18	3,10	3,01	2,96	2,89	2,86	2,80	2,77	2,75
17	4,45	3,59	3,20	2,96	2,81	2,70	2,62	2,55	2,50	2,45	2,41	2,38	2,33	2,29	2,23	2,19	2,15	2,11	2,08	2,04	2,02	1,99	1,97	1,96
	8,40	6,11	5,18	4,67	4,34	4,10	3,93	3,79	3,68	3,59	3,52	3,45	3,35	3,27	3,16	3,08	3,00	2,92	2,86	2,79	2,76	2,70	2,67	2,65
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,46	2,41	2,37	2,34	2,29	2,25	2,19	2,15	2,11	2,07	2,04	2,00	1,98	1,95	1,93	1,92
	8,28	6,01	5,09	4,58	4,25	4,01	3,85	3,71	3,60	3,51	3,44	3,37	3,27	3,19	3,07	3,00	2,91	2,83	2,78	2,71	2,68	2,62	2,59	2,57
19	4,38	3,52	3,13	2,90	2,74	2,63	2,55	2,48	2,43	2,38	2,34	2,31	2,26	2,21	2,15	2,11	2,07	2,02	2,00	1,96	1,94	1,91	1,90	1,88
	8,18	5,93	5,01	4,50	4,17	3,94	3,77	3,63	3,52	3,43	3,36	3,30	3,19	3,12	3,00	2,92	2,84	2,76	2,70	2,63	2,60	2,54	2,51	2,49
20	4,35	3,49	3,10	2,87	2,71	2,60	2,52	2,45	2,40	2,35	2,31	2,26	2,23	2,18	2,12	2,08	2,04	1,99	1,96	1,92	1,90	1,87	1,85	1,84
	8,10	5,85	4,94	4,43	4,10	3,87	3,71	3,56	3,45	3,37	3,30	3,23	3,13	3,05	2,94	2,86	2,77	2,69	2,63	2,56	2,53	2,47	2,44	2,42
21	4,32	3,47	3,07	2,84	2,68	2,57	2,49	2,42	2,37	2,32	2,28	2,25	2,20	2,15	2,09	2,05	2,00	1,96	1,93	1,89	1,87	1,84	1,82	1,81
	8,02	5,78	4,87	4,37	4,04	3,81	3,65	3,51	3,40	3,31	3,24	3,17	3,07	2,99	2,88	2,80	2,72	2,63	2,58	2,51	2,47	2,42	2,38	2,36
22	4,30	3,44	3,05	2,82	2,66	2,55	2,47	2,40	2,35	2,30	2,26	2,23	2,18	2,13	2,07	2,03	1,98	1,93	1,91	1,87	1,84	1,81	1,80	1,78
	7,94	5,72	4,82	4,31	3,99	3,76	3,59	3,45	3,35	3,26	3,18	3,12	3,02	2,94	2,83	2,75	2,67	2,58	2,53	2,46	2,42	2,37	2,33	2,31
23	4,28	3,42	3,03	2,80	2,64	2,53	2,45	2,38	2,32	2,28	2,24	2,20	2,14	2,10	2,04	2,00	1,96	1,91	1,88	1,84	1,82	1,79	1,77	1,76
	7,88	5,66	4,76	4,26	3,94	3,71	3,54	3,41	3,30	3,21	3,14	3,07	2,97	2,89	2,78	2,70	2,62	2,53	2,48	2,41	2,37	2,32	2,28	2,26

LAMPIRAN M
TABEL UJI R

DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT	DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT
1	.997	1.000	24	.388	.496
2	.950	.990	25	.381	.487
3	.878	.959	26	.374	.478
4	.811	.917	27	.367	.470
5	.754	.874	28	.361	.463
6	.707	.834	29	.355	.456
7	.666	.798	30	.349	.449
8	.632	.765	35	.325	.418
9	.602	.735	40	.304	.393
10	.576	.708	48	.288	.372
11	.553	.684	50	.273	.354
12	.532	.661	60	.250	.325
13	.514	.641	70	.232	.302
14	.497	.623	80	.217	.283
15	.482	.606	90	.205	.267
16	.468	.590	100	.195	.254
17	.456	.575	125	.174	.228
18	.444	.561	150	.159	.208
19	.433	.549	200	.138	.181
20	.423	.537	300	.113	.148
21	.413	.526	400	.098	.128
22	.404	.515	500	.088	.115
23	.396	.505	1000	.062	.081

DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT	DEGREES OF FREEDOM (DF)	5 PERCENT	1 PERCENT
1	.997	1.000	24	.388	.496
2	.950	.990	25	.381	.487
3	.878	.959	26	.374	.478
4	.811	.917	27	.367	.470
5	.754	.874	28	.361	.463
6	.707	.834	29	.355	.456
7	.666	.798	30	.349	.449
8	.632	.765	35	.325	.418
9	.602	.735	40	.304	.393
10	.576	.708	48	.288	.372
11	.553	.684	50	.273	.354
12	.532	.661	60	.250	.325
13	.514	.641	70	.232	.302
14	.497	.623	80	.217	.283
15	.482	.606	90	.205	.267
16	.468	.590	100	.195	.254
17	.456	.575	125	.174	.228
18	.444	.561	150	.159	.208
19	.433	.549	200	.138	.181
20	.423	.537	300	.113	.148
21	.413	.526	400	.098	.128
22	.404	.515	500	.088	.115
23	.396	.505	1000	.062	.081

LAMPIRAN N

TABEL UJI T

v	α				
	0.10	0.05	0.025	0.01	0.005
1	3.078	6.314	12.706	31.821	63.657
2	1.886	2.920	4.303	6.965	9.925
3	1.638	2.353	3.182	4.451	5.841
4	1.533	2.132	2.776	3.747	4.604
5	1.476	2.015	2.561	3.365	4.012
6	1.440	1.943	2.447	3.143	3.707
7	1.415	1.895	2.365	2.998	3.499
8	1.397	1.860	2.306	2.896	3.355
9	1.383	1.833	2.262	2.821	3.250
10	1.372	1.812	2.228	2.764	3.169
11	1.363	1.796	2.201	2.718	3.106
12	1.356	1.782	2.179	2.681	3.055
13	1.350	1.771	2.160	2.650	3.012
14	1.345	1.761	2.145	2.624	2.977
15	1.341	1.753	2.131	2.602	2.947
16	1.337	1.746	2.120	2.583	2.921
17	1.333	1.740	2.110	2.567	2.898
18	1.330	1.734	2.101	2.552	2.878
19	1.328	1.729	2.093	2.539	2.861
20	1.325	1.725	2.086	2.528	2.845
21	1.323	1.721	2.080	2.518	2.831
22	1.321	1.717	2.074	2.508	2.819
23	1.319	1.714	2.069	2.500	2.807
24	1.318	1.711	2.064	2.492	2.797
25	1.316	1.708	2.060	2.485	2.787
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
inf.	1.282	1.645	1.960	2.326	2.576

Sumber : Ronald E. Walpole (1995) : Pengantar Statistika.

LAMPIRAN O

HASIL UJI STATISTIK *HAUSNER RATIO*
TABLET LIKUISOLID KLORFENIRAMIN MALEAT ANTAR FORMULA

Descriptives

HAUSNER

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
A	2	1,2400	,01414	,01000	1,1129	1,3671	1,23	1,25
B	2	1,2250	,00707	,00500	1,1615	1,2885	1,22	1,23
C	2	1,2300	,00000	,00000	1,2300	1,2300	1,23	1,23
D	2	1,2400	,01414	,01000	1,1129	1,3671	1,23	1,25
Total	8	1,2338	,01061	,00375	1,2249	1,2426	1,22	1,25

Test of Homogeneity of Variances

HAUSNER

Levene Statistic	df1	df2	Sig,
,	3	,	,

ANOVA

HAUSNER

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	,000	3	,000	1,000	,479
Within Groups	,000	4	,000		
Total	,001	7			

Karena F hitung < F tabel$_{0,05\ (3,4)}$ = 1,000<6,59; maka H_0 diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN P

HASIL UJI STATISTIK CARR'S INDEX
TABLET LIKUISOLID KLORFENIRAMIN MALEAT ANTAR FORMULA

Descriptives

CARRS_INDEX

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
FA	2	19,5000	0,70711	0,50000	13,1469	25,8531	19,00	20,00
FB	2	18,5000	0,70711	0,50000	12,1469	24,8531	18,00	19,00
FC	2	19,0000	0,00000	0,00000	19,0000	19,0000	19,00	19,00
FD	2	19,5000	0,70711	0,50000	13,1469	25,8531	19,00	20,00
Total	8	19,1250	0,64087	0,22658	18,5892	19,6608	18,00	20,00

Test of Homogeneity of Variances

CARRS_INDEX

Levene Statistic	df1	df2	Sig,
,	3	,	,

ANOVA

CARRS_INDEX

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	1,375	3	0,458	1,222	0,410
Within Groups	1,500	4	0,375		
Total	2,875	7			

Karena F hitung < F tabel$_{0,05\ (3,4)}$ = 1,222<6,59; maka H_0 diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN Q

HASIL UJI STATISTIK KEKERASAN
TABLET LIKUISOLID KLORFENIRAMIN MALEAT ANTAR FORMULA

Descriptives

KEKERASAN

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
FA	2	12,0600	0,39598	0,28000	8,5023	15,6177	11,78	12,34
FB	2	12,3100	0,46669	0,33000	8,1170	16,5030	11,98	12,64
FC	2	11,8400	1,14551	0,81000	1,5480	22,1320	11,03	12,65
FD	2	7,1100	0,05657	0,04000	6,6018	7,6182	7,07	7,15
Total	8	10,8300	2,35474	0,83253	8,8614	12,7986	7,07	12,65

Test of Homogeneity of Variances

KEKERASAN

Levene Statistic	df1	df2	Sig,
,	3	,	,

ANOVA

KEKERASAN

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	37,124	3	12,375	29,289	,004
Within Groups	1,690	4	,423		
Total	38,814	7			

Karena F hitung > F tabel$_{0,05\ (3,4)}$ = 29,289 > 6,59; maka H_0 ditolak dan ada perbedaan bermakna antar formula.

Multiple Comparisons

KEKERASAN
LSD

(I) FORMULA	(J) FORMULA	Mean Difference (I-J)	Std, Error	Sig,	95% Confidence Interval	
					Lower Bound	Upper Bound
A	B	-,25000	,65000	,720	-2,0547	1,5547
	C	,22000	,65000	,752	-1,5847	2,0247
	D	4,95000*	,65000	,002	3,1453	6,7547
B	A	,25000	,65000	,720	-1,5547	2,0547
	C	,47000	,65000	,510	-1,3347	2,2747
	D	5,20000*	,65000	,001	3,3953	7,0047
C	A	-,22000	,65000	,752	-2,0247	1,5847
	B	-,47000	,65000	,510	-2,2747	1,3347
	D	4,73000*	,65000	,002	2,9253	6,5347
D	A	-4,95000*	,65000	,002	-6,7547	-3,1453
	B	-5,20000*	,65000	,001	-7,0047	-3,3953
	C	-4,73000*	,65000	,002	-6,5347	-2,9253

*, The mean difference is significant at the 0,05 level.

LAMPIRAN R

HASIL UJI STATISTIK KERAPUHAN
TABLET LIKUISOLID KLORFENIRAMIN MALEAT ANTAR FORMULA

Descriptives

KERAPUHAN

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
FA	2	,0500	,07071	,05000	-,5853	,6853	,00	,10
FB	2	,0000	,00000	,00000	,0000	,0000	,00	,00
FC	2	,1000	,00000	,00000	,1000	,1000	,10	,10
FD	2	,3000	,14142	,10000	-,9706	1,5706	,20	,40
Total	8	,1125	,13562	,04795	-,0009	,2259	,00	,40

Test of Homogeneity of Variances

KERAPUHAN

Levene Statistic	df1	df2	Sig,
,	3	,	,

ANOVA

KERAPUHAN

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	,104	3	,035	5,533	,066
Within Groups	,025	4	,006		
Total	,129	7			

Karena $F_{hitung} < F_{(3,4)} = 5,533 < 6,59$; maka H_0 diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN S

HASIL UJI STATISTIK KONSTANTA DISOLUSI TABLET LIKUISOLID KLORFENIRAMIN MALEAT ANTAR FORMULA

Descriptives

k_DISOLUSI

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
FA	2	,0075	,00120	,00085	-,0034	,0183	,01	,01
FB	2	,0116	,00198	,00140	-,0062	,0294	,01	,01
FC	2	,0094	,00198	,00140	-,0084	,0272	,01	,01
FD	2	,0084	,00064	,00045	,0026	,0141	,01	,01
Total	8	,0092	,00203	,00072	,0075	,0109	,01	,01

Test of Homogeneity of Variances

k_DISOLUSI

Levene Statistic	df1	df2	Sig,
,	3	,	,

ANOVA

k_DISOLUSI

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	,000	3	,000	2,638	,186
Within Groups	,000	4	,000		
Total	,000	7			

Karena F hitung < F tabel$_{0,05\ (3,4)}$ = 2,638 <6,59; maka H_0 ditolak dan ada perbedaan bermakna antar formula.

LAMPIRAN T

HASIL UJI ANAVA *HAUSNER RATIO* KLORFENIRAMIN MALEAT DENGAN *DESIGN EXPERT*

Response 1 Hausner Ratio
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean square	F Value	p-value Prob > F	
Model	0,0003375	3	0,0001125	1	0,4789	not significant
A-Jumlah Tween 80	0,0000125	1	0,0000125	0,111111	0,7556	
B-Kon XG-LBG	0,0000125	1	0,0000125	0,111111	0,7556	
AB	0,0003125	1	0,0003125	2,777778	0,1709	
Pure Error	0,00045	4	0,0001125			
Cor Total	0,0007875	7				

The "Model F-value" of 1,00 implies the model is not significant relative to the noise. There is a 47,89 % chance that a "Model F-value" this large could occur due to noise.
Values of "Prob > F" less than 0,0500 indicate model terms are significant.
In this case there are no significant model terms.
Values greater than 0,1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	0,010606602	R-Squared	0,428571
Mean	1,23375	Adj R-Squared	-6,7E-15
C,V, %	0,859704293	Pred R-Squared	-1,28571
PRESS	0,0018	Adeq Precision	2

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model.

"Adeq Precision" measures the signal to noise ratio, A ratio of 2,00 indicates an inadequate signal and we should not use this model to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	1,23375	1	0,00375	1,223338	1,244162	
A-Jumlah Tween 80	0,00125	1	0,00375	-0,00916	0,011662	1
B-Kon XG-LBG	-0,00125	1	0,00375	-0,01166	0,009162	1
AB	0,00625	1	0,00375	-0,00416	0,016662	1

Final Equation in Terms of Coded Factors:

Hausner Ratio	=	
	1,23375	
	0,00125	* A
	-0,00125	* B
	0,00625	* A * B

Final Equation in Terms of Actual Factors:

Hausner Ratio	=	
	1,23375	
	0,00125	* Jumlah Tween 80
	-0,00125	* Kon XG-LBG
	0,00625	* Jumlah Tween 80 * Kon XG-LBG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.
In the Diagnostics Node, Select Case Statistics from the View Menu.

LAMPIRAN U

HASIL UJI ANAVA CARR'S INDEX KLORFENIRAMIN MALEAT DENGAN *DESIGN EXPERT*

Response 2 Carr's Index

ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean square	F Value	p-value Prob > F	
Model	1,375	3	0,458333333	1,222222	0,4104	not significant
A-Jumlah Tween 80	0,125	1	0,125	0,333333	0,5946	
B-Kon XG-LBG	0,125	1	0,125	0,333333	0,5946	
AB	1,125	1	1,125	3	0,1583	
Pure Error	1,5	4	0,375			
Cor Total	2,875	7				

The "Model F-value" of 1,22 implies the model is not significant relative to the noise.
There is a
41,04 % chance that a "Model F-value" this large could occur due to noise.
Values of "Prob > F" less than 0,0500 indicate model terms are significant.
In this case there are no significant model terms.
Values greater than 0,1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy).
model reduction may improve your model.

Std, Dev,	0,612372436	R-Squared	0,478261
Mean	19,125	Adj R-Squared	0,086957
C,V, %	3,201947376	Pred R-Squared	-1,08696
PRESS	6	Adeq Precision	2,309401

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model.

"Adeq Precision" measures the signal to noise ratio, A ratio of 2,31 indicates an inadequate signal and we should not use this model to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	19,125	1	0,216506351	18,52388	19,72612	
A-Jumlah Tween 80	0,125	1	0,216506351	-0,47612	0,726118	1
B-Kon XG-LBG	-0,125	1	0,216506351	-0,72612	0,476118	1
AB	0,375	1	0,216506351	-0,22612	0,976118	1

Final Equation in Terms of Coded Factors:

Carr's Index	=
19,125	
0,125	* A
-0,125	* B
0,375	* A * B

Final Equation in Terms of Actual Factors:

Carr's Index	=	
19,125		
0,125	*	Jumlah Tween 80
-0,125	*	Kon XG-LBG
0,375	*	Jumlah Tween 80 * Kon XG-LBG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.
In the Diagnostics Node, Select Case Statistics from the View Menu.

LAMPIRAN V

HASIL UJI ANAVA KEKERASAN TABLET KLORFENIRAMIN MALEAT DENGAN *DESIGN EXPERT*

Response 3 Kekerasan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean square	F Value	p-value Prob > F	
Model	37,1236	3	12,37453333	29,28884	0,0035	significant
A-Jumlah Tween 80	14,6882	1	14,6882	34,76497	0,0041	
B-Kon XG-LBG	10,0352	1	10,0352	23,75195	0,0082	
AB	12,4002	1	12,4002	29,34959	0,0056	
Pure Error	1,69	4	0,4225			
Cor Total	38,8136	7				

The Model F-value of 29,29 implies the model is significant, There is only
a 0,35% chance that a "Model F-Value" this large could occur due to noise.
Values of "Prob > F" less than 0,0500 indicate model terms are significant.
In this case A, B, AB are significant model terms.
Values greater than 0,1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy).
model reduction may improve your model.

Std, Dev,	0,65	R-Squared	0,956459
Mean	10,83	Adj R-Squared	0,923802
C,V, %	6,001846722	Pred R-Squared	0,825834
PRESS	6,76	Adeq Precision	11,31371

The "Pred R-Squared" of 0,8258 is in reasonable agreement with the "Adj R-Squared" of 0,9238.

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable. Your ratio of 11,314 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	10,83	1	0,229809704	10,19195	11,46805	
A-Jumlah Tween 80	-1,355	1	0,229809704	-1,99305	-0,71695	1
B-Kon XG-LBG	-1,12	1	0,229809704	-1,75805	-0,48195	1
AB	-1,245	1	0,229809704	-1,88305	-0,60695	1

Final Equation in Terms of Coded Factors:

Kekerasan =

10,83

-1,355 * A

-1,12 * B

-1,245 * A * B

Final Equation in Terms of Actual Factors:

Kekerasan =

10,83

-1,355 * Jumlah Tween 80

-1,12 * Kon XG-LBG

-1,245 * Jumlah Tween 80 * Kon XG-LBG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,
In the Diagnostics Node, Select Case Statistics from the View Menu,

LAMPIRAN W

HASIL UJI ANAVA KERAPUHAN TABLET KLORFENIRAMIN MALEAT DENGAN *DESIGN EXPERT*

Response 4 Kerapuhan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean square	F Value	p-value Prob > F	
Model	0,10375	3	0,034583333	5,533333	0,0659	not significant
A-Jumlah Tween 80	0,06125	1	0,06125	9,8	0,0352	
B-Kon XG-LBG	0,01125	1	0,01125	1,8	0,2508	
AB	0,03125	1	0,03125	5	0,0890	
Pure Error	0,025	4	0,00625			
Cor Total	0,12875	7				

The Model F-value of 5,53 implies there is a 6,59% chance that a "Model F-Value"
this large could occur due to noise,
Values of "Prob > F" less than 0,0500 indicate model terms are significant,
In this case A are significant model terms,
Values greater than 0,1000 indicate the model terms are not significant,
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model,

Std, Dev,	0,079056942	R-Squared	0,805825

Mean	0,1125	Adj R-Squared	0,660194
C,V, %	70,27283689	Pred R-Squared	0,223301
PRESS	0,1	Adeq Precision	5,366563

The "Pred R-Squared" of 0,2233 is not as close to the "Adj R-Squared" of 0,6602 as one might normally expect, This may indicate a large block effect or a possible problem with your model and/or data, Things to consider are model reduction, response transformation, outliers, etc,

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 5,367 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	0,1125	1	0,02795085	0,034896	0,190104	
A-Jumlah Tween 80	0,0875	1	0,02795085	0,009896	0,165104	1
B-Kon XG-LBG	0,0375	1	0,02795085	-0,0401	0,115104	1
AB	0,0625	1	0,02795085	-0,0151	0,140104	1

Final Equation in Terms of Coded Factors:

Kerapuhan =

0,1125

0,0875 * A

0,0375 * B

0,0625 * A * B

Final Equation in Terms of Actual Factors:

Kerapuhan =
0,1125
0,0875 * Jumlah Tween 80
0,0375 * Kon XG-LBG
0,0625 * Jumlah Tween 80 * Kon XG-LBG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,
In the Diagnostics Node, Select Case Statistics from the View Menu,

LAMPIRAN X

HASIL UJI ANAVA KONSTANTA LAJU DISOLUSI KLORFENIRAMIN MALEAT DENGAN *DESIGN EXPERT*

Response 5 K Disolusi
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean square	F Value	p-value Prob > F	
Model	0,000010305	3	0,000003435	2,558659	0,1930	not significant
A-Jumlah Tween 80	0,00000098	1	0,00000098	0,729981	0,4410	
B-Kon XG-LBG	8E-08	1	8E-08	0,05959	0,8192	
AB	0,000009245	1	0,000009245	6,886406	0,0585	
Pure Error	0,00000537	4	1,3425E-06			
Cor Total	0,000015675	7				

The "Model F-value" of 2,56 implies the model is not significant relative to the noise, There is a 19,30 % chance that a "Model F-value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,
In this case there are no significant model terms,
Values greater than 0,1000 indicate the model terms are not significant,
If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	0,001158663	R-Squared	0,657416
Mean	0,008775	Adj R-Squared	0,400478
C,V, %	13,20413701	Pred R-Squared	-0,37033
PRESS	0,00002148	Adeq Precision	3,478586

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model,

"Adeq Precision" measures the signal to noise ratio, A ratio of 3,48 indicates an inadequate signal and we should not use this model to navigate the design space,

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF	
Intercept	0,008775	1	0,000409649	0,007638	0,009912		
A-Jumlah Tween 80	0,00035	1	0,000409649	-0,00079	0,001487		1
B-Kon XG-LBG	-0,0001	1	0,000409649	-0,00124	0,001037		1
AB	-0,001075	1	0,000409649	-0,00221	6,24E-05		1

Final Equation in Terms of Coded Factors:

k Disolusi	=
0,008775	
0,00035	* A
-0,0001	* B
-0,001075	* A * B

Final Equation in Terms of Actual Factors:

k Disolusi	=	
0,008775		
0,00035	*	Jumlah Tween 80
-0,0001	*	Kon XG-LBG
-0,001075	*	Jumlah Tween 80 * Kon XG-LBG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,
In the Diagnostics Node, Select Case Statistics from the View Menu,

LAMPIRAN Y

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI *HAUSNER RATIO* TABLET KLORFENIRAMIN MALEAT

Paired Samples Statistics

		Mean	N	Std, Deviation	Std, Error Mean
Pair 1	PERCOBAAN	1,2375	4	,00500	,00250
	TEORITIS	1,2325	4	,00957	,00479

Paired Samples Correlations

		N	Correlation	Sig,
Pair 1	PERCOBAAN & TEORITIS	4	,174	,826

Paired Samples Test

		Paired Differences					t	df	Sig, (2-tailed)
		Mean	Std, Deviation	Std, Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PERCOBAAN - TEORITIS	,0050	,01000	,00500	-,01091	,02091	1,000	3	,391

Hipotesa Pengujian :
Ho diterima jika T_{hitung} (1,000) < $T_{0,025\ (3)}$ (3,182), berarti hasil percobaan dan hasil teoritis pada uji disolusi tidak berbeda bermakna antar formula,

LAMPIRAN Z

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI *CARR'S INDEX* TABLET KLORFENIRAMIN MALEAT

Paired Samples Statistics

		Mean	N	Std, Deviation	Std, Error Mean
Pair 1	TEORITIS	19,1300	4	,48744	,24372
	PERCOBAAN	19,5000	4	,57735	,28868

Paired Samples Correlations

		N	Correlation	Sig,
Pair 1	PERCOBAAN & TEORITIS	4	,900	,100

Paired Samples Test

		Paired Differences					t	df	Sig, (2-tailed)
		Mean	Std, Deviation	Std, Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PERCOBAAN - TEORITIS	,37000	,25351	,12675	-,03339	,77339	2,919	3	,062

Hipotesa Pengujian :
Ho diterima jika T_{hitung} (2,919) < $T_{0,025\ (3)}$ (3,182), berarti hasil percobaan dan hasil teoritis pada uji disolusi tidak berbeda bermakna antar formula,

LAMPIRAN AA

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI KEKERASAN TABLET KLORFENIRAMIN MALEAT

Paired Samples Statistics

		Mean	N	Std, Deviation	Std, Error Mean
Pair 1	PERCOBAAN	10,8300	4	2,48742	1,24371
	TEORITIS	10,8300	4	2,49439	1,24720

Paired Samples Correlations

		N	Correlation	Sig,
Pair 1	PERCOBAAN & TEORITIS	4	1,000	,000

Paired Samples Test

		Paired Differences					t	df	Sig, (2-tailed)
		Mean	Std, Deviation	Std, Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PERCOBAAN - TEORITIS	,00000	,00816	,00408	-,01299	,01299	,000	3	1,000

Hipotesa Pengujian :
Ho diterima jika T_{hitung} (0,000) < $T_{0,025\ (3)}$ (3,182), berarti hasil percobaan dan hasil teoritis pada uji disolusi tidak berbeda bermakna antar formula,

LAMPIRAN AB

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI KERAPUHAN TABLET KLORFENIRAMIN MALEAT

Warnings

The Paired Samples Correlations table is not produced,
The Paired Samples Test table is not produced,

Paired Samples Statistics

		Mean	N	Std, Deviation	Std, Error Mean
Pair 1	PERCOBAAN	,1125[a]	4	,13150	,06575
	TEORITIS	,1125[a]	4	,13150	,06575

a, The correlation and t cannot be computed because the standard error of the difference is 0,

Hipotesa Pengujian :
Ho diterima karena tidak didapatkan hasil T_{hitung} dan T_{tabel} yang berarti tidak ada perbedaan bermakna,

LAMPIRAN AC

HASIL UJI STATISTIK HASIL PERCOBAAN DAN HASIL TEORITIS PADA UJI KONTANTA DISOLUSI TABLET KLORFENIRAMIN MALEAT

Paired Samples Statistics

		Mean	N	Std, Deviation	Std, Error Mean
Pair 1	PERCOBAAN	,0085	4	,00129	,00065
	TEORITIS	,0088	4	,00206	,00103

Paired Samples Correlations

		N	Correlation	Sig,
Pair 1	PERCOBAAN & TEORITIS	4	,814	,186

Paired Samples Test

		Paired Differences					t	df	Sig, (2-tailed)
		Mean	Std, Deviation	Std, Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PERCOBAAN - TEORITIS	-,00025	,00126	,00063	-,00225	,00175	-,397	3	,718

Hipotesa Pengujian :
Ho diterima jika T_{hitung} (0,397) < $T_{0,025\ (3)}$ (3,182), berarti hasil percobaan dan hasil teoritis pada uji disolusi tidak berbeda bermakna antar formula,