LAMPIRAN A

HASIL UJI MUTU FISIK MASSA TABLET

Mutu fisik yang diuji	Replikasi	Formula Tablet Likuisolid Piroksikam				Persyaratan
		FA	FB	FC	FD	
Sudut diam (derajat)	I	34,7	26,30	27,54	28,48	25-40˚ cukup baik
	II	31,32	25,10	26,23	27,33	>40º buruk
	III	31,57	26,26	26,52	28,59	(Wells, 1988)
	Rata-rata	32,53	25,89	26,76	28,13	
	SD	1,88	0,68	0,69	0,70	
Hausner Ratio	I	1,23	1,15	1,23	1,23	Tidak lebih dari 1,25
	II	1,25	1,14	1,18	1,22	(Shervington&Sher-
	III	1,23	1,22	1,18	1,19	vington, 1998)
	Rata-rata	1,24	1,17	1,20	1,21	
	SD	0,01	0,04	0,03	0,02	
Indeks	I	18,99	13	19	19	12-16 baik
Kompresi-	II	19,99	12,5	15,5	18	18-21 cukup baik
bilitas (%)	III	19	18	15,5	16	>21 buruk
	Rata-rata	19,33	14,5	16,67	17,67	(Wells, 1988)
	SD	0,57	3,04	2,02	1,53	

63

LAMPIRAN B

HASIL UJI DISTRIBUSI UKURAN PARTIKEL

Formula A

Repli-kasi	*Mesh*	d (µm)	ln d (µm)	Berat granul tertahan (g)	Persen bobot	Persen fka	Nilai Z
I	20	850	6,75	0,10	0,20	0,2	-2,88
	40	425	6,05	0,37	0,74	0,94	-2,35
	60	250	5,52	0,66	1,32	2,25	-2,00
	80	180	5,19	10,52	20,97	23,22	-0,73
	100	150	5,01	5,08	10,13	33,35	-0,43
	120	125	4,83	8,00	15,95	49,29	-0,02
	0	0		25,44	50,71	100,00	
	∑			50,17			
II	20	850	6,75	0,12	0,24	0,24	-2,82
	40	425	6,05	0,27	0,54	0,78	-2,42
	60	250	5,52	0,65	1,30	2,08	-2,04
	80	180	5,19	9,67	19,36	21,45	-0,79
	100	150	5,01	5,19	10,39	31,84	-0,47
	120	125	4,83	8,56	17,14	48,98	-0,03
	0	0		25,48	51,02	100,00	
	∑			49,94			
III	20	850	6,75	0,08	0,16	0,16	-2,94
	40	425	6,05	0,37	0,74	0,90	-2,36
	60	250	5,52	0,58	1,16	2,07	-2,04
	80	180	5,19	9,28	18,63	20,70	-0,82
	100	150	5,01	4,89	9,82	30,52	-0,51
	120	125	4,83	8,53	17,13	47,64	-0,06
	0	0		26,08	52,36	100,00	
	∑			49,81			

Keterangan : d = diameter ayakan; % fka = frekuensi kumulatif atas

Formula B

Repli-kasi	*Mesh*	d (µm)	ln d (µm)	Berat granul tertahan (g)	Persen bobot	Persen fka	Nilai Z
I	20	850	6,75	0,76	1,52	1,52	-2,17
	40	425	6,05	4,06	8,11	9,63	-1,3
	60	250	5,52	2,48	4,95	14,58	-1,05
	80	180	5,19	10,07	20,10	34,68	-0,39
	100	150	5,01	4,55	9,08	43,76	-0,16
	120	125	4,83	7,02	14,01	57,78	0,2
	0	0		21,15	42,22	100,00	
	∑			50,09			
II	20	850	6,75	0,24	0,48	0,48	-2,59
	40	425	6,05	4,15	8,29	8,77	-2,38
	60	250	5,52	1,90	3,80	12,57	-1,15
	80	180	5,19	9,34	18,66	31,23	-0,49
	100	150	5,01	4,30	8,59	39,82	-0,26
	120	125	4,83	7,55	15,08	54,91	0,12
	0	0		22,57	45,09	100,00	
	∑			50,05			
III	20	850	6,75	0,49	0,94	0,94	-2,35
	40	425	6,05	4,34	8,30	9,24	-1,33
	60	250	5,52	2,11	4,04	13,28	-1,11
	80	180	5,19	9,46	18,09	31,37	-0,49
	100	150	5,01	4,89	9,35	40,72	-0,23
	120	125	4,83	7,70	14,73	55,44	0,14
	0	0		23,3	44,56	100,00	
	∑			52,29			

Keterangan : d = diameter ayakan; % fka = frekuensi kumulatif atas

Formula C

Repli-kasi	*Mesh*	d (µm)	ln d (µm)	Berat granul tertahan (g)	Persen bobot	Persen fka	Nilai Z
I	20	850	6,75	0,02	0,04	0,04	-3,4
	40	425	6,05	0,62	1,28	1,32	-3,00
	60	250	5,52	0,82	1,69	3,02	-1,88
	80	180	5,19	9,65	19,95	22,96	-0,74
	100	150	5,01	3,23	6,68	29,64	-0,53
	120	125	4,83	8,09	16,72	46,36	-0,09
	0	0		25,95	53,64	100,00	
	∑			48,38			
II	20	850	6,75	0,01	0,02	0,02	-3,6
	40	425	6,05	0,60	1,22	1,24	-2,25
	60	250	5,52	1,19	2,42	3,66	-1,79
	80	180	5,19	9,75	19,80	23,46	-0,72
	100	150	5,01	4,02	8,17	31,63	-0,48
	120	125	4,83	8,03	16,31	47,94	0,05
	0	0		25,63	52,06	100,00	
	∑			49,23			
III	20	850	6,75	0,03	0,06	0,06	-3,3
	40	425	6,05	0,51	1,02	1,08	-2,3
	60	250	5,52	1,26	2,52	3,60	-1,8
	80	180	5,19	10,45	20,92	24,52	-0,69
	100	150	5,01	4,68	9,37	33,89	-0,42
	120	125	4,83	7,08	14,17	48,06	-0,05
	0	0		25,95	51,94	100,00	
	∑			49,96			

Keterangan : d = diameter ayakan; % fka = frekuensi kumulatif atas

Formula D

Repli-kasi	*Mesh*	d (µm)	ln d (µm)	Berat granul tertahan (g)	Persen bobot	Persen fka	Nilai Z
I	20	850	6,75	0,10	0,20	0,20	-2,88
	40	425	6,05	0,98	1,96	2,16	-2,02
	60	250	5,52	0,87	1,74	3,90	-1,76
	80	180	5,19	9,78	19,57	23,47	-0,72
	100	150	5,01	5,00	10,01	33,48	-0,43
	120	125	4,83	7,99	15,99	49,47	-0,01
	0	0		25,25	50,53	100,00	
	∑			49,97			
II	20	850	6,75	0,10	0,20	0,20	-2,88
	40	425	6,05	0,38	0,76	0,96	-2,34
	60	250	5,52	0,92	1,84	2,80	-1,91
	80	180	5,19	9,58	19,15	21,95	-0,77
	100	150	5,01	4,75	9,49	31,44	-0,48
	120	125	4,83	8,09	16,17	47,61	-0,06
	0	0		26,21	52,39	100,00	
	∑			50,03			
III	20	850	6,75	0,1	0,20	0,20	-2,88
	40	425	6,05	0,68	1,36	1,56	-2,15
	60	250	5,52	1,79	3,59	5,15	-1,63
	80	180	5,19	9,68	19,40	24,55	-0,69
	100	150	5,01	4,88	9,78	34,33	-0,40
	120	125	4,83	8,04	16,11	50,44	0,01
	0	0		24,73	49,56	100,00	
	∑			49,9			

Keterangan : d = diameter ayakan; % fka = frekuensi kumulatif atas

Hasil Uji Distribusi Ukuran Partikel Antar Formula

Formula	Replikasi	dg	σg
A	I	103,27	1,93
	II	99,33	1,96
	III	98,95	1,94
Rata-rata ± SD		100,51 ± 2,39	1,94 ± 0,015
B	I	130,46	2,33
	II	123,53	1,93
	III	124,72	2,27
Rata-rata ± SD		126,24 ± 3,71	2,18 ± 0,21
C	I	108,30	1,72
	II	117,19	1,72
	III	112,35	1,80
Rata-rata ± SD		112,61 ± 4,45	1,75 ± 0,044
D	I	106,70	1,997
	II	101,17	1,95
	III	110,35	1,94
Rata-rata ± SD		106,07 ± 4,62	1,96 ± 0,03

Keterangan : dg = diameter rata-rata geometrik; σg = simpangan baku geometrik

LAMPIRAN C

HASIL UJI KERAGAMAN BOBOT TABLET

Formula A

No	Replikasi I		Replikasi II		Replikasi III	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	668,3	96,92	661,3	95,31	664,3	96,61
2	677,2	98,21	663,2	95,58	665,1	96,72
3	666,8	96,70	655,0	94,40	666,2	96,88
4	663,7	96,25	634,9	91,51	649,4	94,44
5	674,7	97,85	653,2	94,14	651,2	94,70
6	656,0	95,14	678,3	97,76	662,0	96,27
7	667,8	96,85	659,0	94,98	663,5	96,49
8	675,9	98,02	656,3	94,59	651,0	94,67
9	674,7	97,85	661,6	95,35	648,8	94,35
10	668,4	96,94	638,1	91,97	640,6	93,16
Rata-rata	669,32	97,07	656,09	94,56	656,21	95,43
SD		0,95		1,79		1,31
SDrel(%)		0,97		1,90		1,37

Formula B

No	Replikasi I		Replikasi II		Replikasi III	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	648,7	94,36	659,4	98,58	643,6	95,94
2	634,9	92,35	650,6	97,27	636,9	94,95
3	654,5	95,20	643,1	96,15	642,0	95,71
4	649,9	94,53	645,7	96,53	645,3	96,20
5	657,3	95,61	638,0	95,38	647,6	96,54
6	670,9	97,59	644,0	96,28	651,7	97,15
7	652,8	94,95	631,1	94,35	640,2	95,44
8	654,9	95,26	646,9	96,71	648,2	96,63
9	649,3	94,44	644,7	96,39	642,8	95,82
10	672,4	97,80	646,5	96,65	642,8	95,82
Rata-rata	654,56	95,21	645,0	96,43	644,11	96,02
SD		1,58		1,11		0,64
SDrel(%)		1,66		1,15		0,66

Formula C

No	Replikasi I		Replikasi II		Replikasi III	
	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)	Bobot Tablet (mg)	Y (%)
1	658,7	97,32	634,8	94,37	653,6	97,00
2	652,4	96,39	634,4	94,31	642,8	95,40
3	659,7	97,46	636,3	94,59	654,1	97,07
4	666,8	98,51	640,3	95,18	651,0	96,61
5	660,8	97,63	649,9	96,61	655,2	97,24
6	657,1	97,08	640,1	95,15	651,2	96,64
7	654,3	96,67	638,5	94,92	635,8	94,36
8	655,5	96,84	639,7	95,09	653,2	96,94
9	656,6	97,01	632,4	94,01	649,6	96,40
10	653,8	96,59	659,1	97,98	653,9	97,04
Rata-rata	657,57	97,15	640,55	95,22	650,04	96,47
SD		0,62		1,21		0,91
SDrel(%)		0,64		1,27		0,94

Formula D

No	Replikasi I		Replikasi II		Replikasi III	
	Bobot Tablet (mg)	**Y (%)**	**Bobot Tablet (mg)**	**Y (%)**	**Bobot Tablet (mg)**	**Y (%)**
1	663,6	100,58	635,4	99,57	647,7	95,73
2	661,0	100,18	647,5	101,47	636,6	94,09
3	657,9	99,71	664,0	104,05	646,9	95,61
4	669,8	101,52	641,9	100,59	652,2	96,40
5	660,6	100,12	641,8	100,57	650,7	96,18
6	669,7	101,50	654,2	102,52	645,3	95,38
7	654,1	99,14	640,8	100,42	653,5	96,59
8	643,7	97,56	641,5	100,53	648,3	95,82
9	664,8	100,76	644,9	101,06	651,5	96,29
10	650,1	98,53	652,3	102,22	637,4	94,21
Rata-rata	659,53	99,96	646,43	101,30	647,01	95,63
SD		1,27		1,31		0,87
SDrel(%)		1,27		0,20		0,91

LAMPIRAN D

HASIL UJI KESERAGAMAN KANDUNGAN

Formula A Replikasi I

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,455	5,59	20,05	651,6	6,01	92,93
0,456	5,60	20,47	665,3	6,14	91,23
0,452	5,55	20,24	657,7	6,07	91,44
0,464	5,71	20,21	656,7	6,06	94,12
0,450	5,53	20,21	656,7	6,06	91,15
0,456	5,60	20,04	651,3	6,01	93,19
0,461	5,67	20,11	653,5	6,03	93,94
0,458	5,63	19,49	633,3	5,85	96,28
0,474	5,83	20,00	649,9	6,00	97,24
0,480	5,91	20,17	655,5	6,05	97,68
				Rata-rata	93,92
				SD	2,43
				KV	2,59

Formula A Replikasi II

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,456	5,60	20,04	651,3	6,01	93,19
0,458	5,63	19,91	647,2	5,97	94,21
0,450	5,53	20,12	653,9	6,04	91,54
0,451	5,54	20,26	658,3	6,08	91,14
0,442	5,42	19,36	629,3	5,81	93,36
0,454	5,58	19,71	640,5	5,91	94,33
0,461	5,67	19,86	645,3	5,96	95,13
0,458	5,63	20,04	651,2	6,01	93,63
0,456	5,60	20,02	650,5	6,00	93,30
0,454	5,58	19,92	647,3	5,98	93,34
				Rata-rata	93,32
				SD	1,21
				KV	1,29

Formula A Replikasi III

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,465	5,72	19,79	643,3	5,94	96,29
0,466	5,73	20,30	659,6	6,09	94,12
0,447	5,49	19,71	640,6	5,91	92,79
0,456	5,60	20,42	663,5	6,12	91,48
0,462	5,68	20,09	652,8	6,03	94,25
0,459	5,64	20,11	653,7	6,03	93,48
0,461	5,67	20,09	652,8	6,03	94,04
0,457	5,62	19,92	647,3	5,98	93,98
0,465	5,72	20,04	651,4	6,01	95,09
0,463	5,69	19,99	649,8	6,00	94,90
				Rata-rata	94,04
				SD	1,31
				KV	1,39

Formula B Replikasi I

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,447	5,49	19,89	646,4	5,97	91,96
0,452	5,55	19,82	644,1	5,95	93,37
0,450	5,53	19,87	645,7	5,96	92,71
0,449	5,51	20,42	663,7	6,13	89,98
0,453	5,56	20,08	652,7	6,02	92,35
0,461	5,67	20,15	655	6,05	93,72
0,446	5,47	20,05	651,7	6,02	91,00
0,451	5,54	19,69	639,8	5,91	93,78
0,471	5,79	19,95	648,5	5,99	96,80
0,463	5,69	19,96	648,7	5,99	95,06
				Rata-rata	93,07
				SD	1,96
				KV	2,11

Formula B Replikasi II

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,447	5,49	20,02	650,6	6,01	91,37
0,47	5,78	19,57	635,9	5,87	98,50
0,463	5,69	19,88	646,1	5,96	95,44
0,459	5,64	19,97	649	5,99	94,16
0,448	5,50	20,07	652,4	6,02	91,33
0,454	5,58	19,78	642,7	5,93	94,00
0,461	5,67	19,81	643,9	5,94	95,34
0,463	5,69	20,01	650,2	6,00	94,84
0,452	5,55	20,13	654,1	6,04	91,94
0,457	5,62	19,87	645,7	5,96	94,21
				Rata-rata	94,11
				SD	2,19
				KV	2,33

Formula B Replikasi III

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,457	5,62	19,49	633,3	5,85	96,06
0,447	5,49	19,94	648	5,98	91,74
0,481	5,92	20,05	651,7	6,02	98,46
0,443	5,44	19,86	645,6	5,96	91,22
0,439	5,38	19,70	640,4	5,91	91,09
0,446	5,47	20,10	653,2	6,03	90,79
0,447	5,49	19,55	635,4	5,87	93,55
0,451	5,54	19,93	647,8	5,98	92,62
0,453	5,56	20,24	657,8	6,07	91,64
0,448	5,50	19,99	649,8	6,00	91,69
				Rata-rata	92,89
				SD	2,50
				KV	2,69

Formula C Replikasi I

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,444	5,45	19,79	643,3	5,94	91,76
0,475	5,85	19,95	648,5	5,99	97,66
0,452	5,55	20,10	653,1	6,03	92,08
0,485	5,97	20,37	661,9	6,11	97,78
0,455	5,59	20,08	652,6	6,02	92,79
0,463	5,69	19,76	642,3	5,93	96,01
0,456	5,60	19,94	647,9	5,98	93,68
0,458	5,63	20,05	651,5	6,01	93,59
0,447	5,49	19,96	648,7	5,99	91,64
0,445	5,46	19,98	649,5	6,00	91,10
				Rata-rata	93,81
				SD	2,49
				KV	2,66

Formula C Replikasi II

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,44	5,40	19,69	639,9	5,91	91,38
0,448	5,50	19,51	634,1	5,85	93,97
0,441	5,41	19,58	636,3	5,87	92,11
0,459	5,64	19,58	636,5	5,88	96,01
0,437	5,36	19,58	636,3	5,87	91,24
0,448	5,50	19,62	637,8	5,89	93,42
0,443	5,44	19,59	636,7	5,88	92,49
0,460	5,65	19,70	640,1	5,91	95,69
0,451	5,54	19,69	639,8	5,91	93,78
0,446	5,47	19,65	638,7	5,90	92,85
				Rata-rata	93,29
				SD	1,63
				KV	1,75

Formula C Replikasi III

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,458	5,63	19,74	641,4	5,92	95,06
0,454	5,58	19,71	640,5	5,91	94,33
0,468	5,76	19,80	643,6	5,94	96,89
0,446	5,47	19,78	642,7	5,93	92,28
0,447	5,49	19,95	648,4	5,99	91,68
0,441	5,41	19,77	642,5	5,93	91,22
0,444	5,45	19,81	643,8	5,94	91,69
0,468	5,76	19,69	639,9	5,91	97,45
0,459	5,64	19,85	645,2	5,96	94,72
0,463	5,69	19,96	648,7	5,99	95,06
				Rata-rata	94,04
				SD	2,23
				KV	2,37

Formula D Replikasi I

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,492	6,06	20,31	660,2	6,09	99,51
0,456	5,60	19,98	649,5	6,00	93,45
0,497	6,13	19,88	646	5,96	102,77
0,444	5,45	19,71	640,5	5,91	92,16
0,477	5,87	20,32	660,5	6,10	96,31
0,461	5,67	20,15	655	6,05	93,72
0,458	5,63	20,02	650,5	6,00	93,73
0,471	5,79	19,86	645,3	5,96	97,28
0,464	5,71	19,49	633,3	5,85	97,59
0,459	5,64	20,00	649,9	6,00	94,03
				Rata-rata	96,06
				SD	3,30
				KV	3,43

Formula D Replikasi II

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,484	5,96	20,53	667,1	6,16	96,81
0,511	6,31	20,15	654,8	6,04	104,36
0,444	5,45	19,87	645,7	5,96	91,42
0,444	5,45	19,93	647,6	5,98	91,15
0,445	5,46	19,80	643,4	5,94	91,96
0,463	5,69	20,07	652,3	6,02	94,54
0,477	5,87	19,84	644,9	5,95	98,64
0,485	5,97	19,74	641,5	5,92	100,89
0,461	5,67	19,72	640,8	5,92	95,80
0,447	5,49	19,75	641,8	5,92	92,62
				Rata-rata	95,82
				SD	4,42
				KV	4,61

Formula D replikasi III

Absorbansi	C sampel	W sampel	W teoritis	C teoritis	Kadar (%)
0,453	5,56	20,01	650,20	6,00	92,71
0,441	5,41	19,69	640,00	5,91	91,58
0,443	5,44	19,86	645,30	5,96	91,26
0,447	5,49	20,04	651,20	6,01	91,28
0,451	5,54	20,07	652,20	6,02	92,00
0,459	5,64	19,59	636,6	5,88	96,00
0,444	5,45	20,05	651,5	6,01	90,60
0,461	5,67	19,95	648,3	5,98	94,69
0,44	5,40	19,61	637,4	5,88	91,74
0,467	5,74	19,90	646,9	5,97	96,19
				Rata-rata	92,80
				SD	2,06
				KV	2,22

LAMPIRAN E

HASIL UJI KEKERASAN TABLET LIKUISOLID PIROKSIKAM

Replikasi I

No	Kekerasan tablet likuisolid piroksikam			
	Formula A	**Formula B**	**Formula C**	**Formula D**
1	16,3	15,61	16,3	14,28
2	16,3	15,23	16,3	14,6
3	16,3	15,04	16,3	14,72
4	16,3	15,42	16,3	14,98
5	16,3	16,3	16,3	14,16
6	16,3	16,3	16,3	15,1
Rata-rata ± SD	16,3 ± 0	15,65 ± 0,5381	16,3 ± 0	15,1 ± 0,3729

Replikasi II

No	Kekerasan tablet likuisolid piroksikam			
	Formula A	**Formula B**	**Formula C**	**Formula D**
1	16,3	9,12	16,3	12,21
2	16,3	8,75	16,3	10,01
3	16,3	8,37	16,3	12,21
4	16,3	8,75	16,3	14,03
5	16,3	8,81	16,3	14,91
6	16,3	8,81	16,36	15,98
Rata-rata ± SD	16,3 ± 0	8,77 ± 0,2394	16,31 ± 0,0245	13,23 ± 2,1667

Replikasi III

No	Kekerasan tablet likuisolid piroksikam			
	Formula A	**Formula B**	**Formula C**	**Formula D**
1	15,86	7,05	16,3	12,33
2	16,3	6,98	16,3	12,59
3	14,03	6,8	16,3	12,08
4	16,36	6,61	16,3	12,59
5	16,3	6,29	16,3	13,72
6	16,3	6,61	16,3	13,21
Rata-rata ± SD	15,8 ± 0,9143	6,72 ± 0,28	16,3 ± 0	12,75 ± 0,6048

LAMPIRAN F

HASIL UJI KERAPUHAN TABLET LIKUISOLID PIROKSIKAM

Formula	Replikasi	Berat awal (g)	Berat akhir (g)	Kerapuhan (%)	Rata-rata ± SD	SDrel
A	I	13.16	13.14	0,15	0,055 ± 0,08	150,20
	II	13,139	13,139	0		
	III	13,159	13,157	0,015		
B	I	12,985	12,980	0,039	0,123 ± 0,14	113,82
	II	12,920	12,915	0,039		
	III	12,900	12,862	0,29		
C	I	13,192	13.187	0,04	0,033 ± 0,01	30,30
	II	12,720	12,717	0,02		
	III	12,971	12,966	0,04		
D	I	13,205	13,204	0,007	0,112 ± 0,16	142,86
	II	12,820	12,780	0,3		
	III	13,047	13,043	0,03		

LAMPIRAN G

HASIL UJI WAKTU HANCUR TABLET LIKUISOLID PIROKSIKAM

Replikasi	Waktu Hancur Tablet Likuisolid Piroksikam (menit)			
	Formula A	**Formula B**	**Formula C**	**Formula D**
I	2	1	1	1
II	1	2	1	1
III	1	1	2	1
Rata-rata ±SD	1,33 ± 0,58	1,33 ± 0,58	1,33 ± 0,58	1 ± 0

LAMPIRAN H

HASIL PENETAPAN KADAR TABLET LIKUISOLID PIROKSIKAM

Replikasi I

Formula	Replikasi	Absorbansi	Csampel	Cteoritis (mg/L)	Kadar (%)	Rata-rata ± SD	SD rel (%)
A	I	0,458	5,63	5,85	96,28	97,07 ± 0,7159	0,74
	II	0,474	5,83	6	97,24		
	III	0,480	5,91	6,05	97,68		
B	I	0,471	5,79	5,99	96,80	95,21 ± 1,5158	1,59
	II	0,463	5,69	5,99	95,06		
	III	0,451	5,54	5,91	93,78		
C	I	0,475	5,85	5,99	97,66	97,15 ± 0,9891	1,02
	II	0,485	5,97	6,11	97,78		
	III	0,463	5,69	5,93	96,01		
D	I	0,492	6,06	6,09	99,51	99,96 ± 2,6187	2,62
	II	0,497	6,13	5,96	102,77		
	III	0,464	5,71	5,85	97,59		

Replikasi II

Formula	Replikasi	Absorbansi	Csampel	Cteoritis (mg/L)	Kadar (%)	Rata-rata ± SD	SD rel (%)
A	I	0,461	5,67	5,96	95,13	94,56 ± 0,5026	0,53
	II	0,454	5,58	5,91	94,33		
	III	0,458	5,63	5,97	94,21		
B	I	0,470	5,78	5,87	98,5	96,43 ± 1,7963	1,86
	II	0,461	5,67	5,94	95,34		
	III	0,463	5,69	5,96	95,44		
C	I	0,459	5,64	5,88	96,01	95,22 ± 1,0971	1,15
	II	0,46	5,65	5,91	95,69		
	III	0,448	5,5	5,85	93,97		
D	I	0,477	5,87	5,95	98,64	101,30 ± 2,8816	2,84
	II	0,485	5,97	5,92	100,89		
	III	0,511	6,31	6,04	104,36		

Replikasi III

Formula	Replikasi	Absorbansi	Csampel	Cteoritis (mg/L)	Kadar (%)	Rata-rata ± SD	SD rel (%)
A	I	0,465	5,72	5,94	96,29	95,43 ± 0,7537	0,79
	II	0,465	5,72	6,01	95,09		
	III	0,463	5,69	6	94,9		
B	I	0,481	5,92	6,02	98,46	96,02 ± 2,4552	2,56
	II	0,457	5,62	5,85	96,06		
	III	0,447	5,49	5,87	93,55		
C	I	0,468	5,76	5,94	96,89	96,47 ± 1,2500	1,30
	II	0,468	5,76	5,91	97,45		
	III	0,463	5,69	5,99	95,06		
D	I	0,467	5,74	5,97	96,19	95,63 ± 0,8167	0,85
	II	0,459	5,64	5,88	96		
	III	0,461	5,67	5,98	94,69		

LAMPIRAN I

HASIL UJI DISOLUSI TABLET LIKUISOLID PIROKSIKAM

Formula A Replikasi I

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,18	2,0641	1	2,0641	1,8577	9,57	4,6443
10	0,371	4,5128	1	4,5128	4,0615	20,92	14,798
20	0,626	7,7821	1	7,7821	7,0038	36,08	55,3265
30	0,223	2,6154	4	10,4615	9,4154	48,50	82,096
45	0,265	3,1538	4	12,6154	11,3538	58,48	155,769
60	0,31	3,7308	4	14,9231	13,4308	69,18	185,8845

Formula A Replikasi II

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,23	2,7051	1	2,7051	2,4346	12,87	6,0865
10	0,263	3,1282	1	3,1282	2,8154	14,89	13,125
20	0,745	9,3077	1	9,3077	8,3769	44,29	55,9615
30	0,301	3,6154	3,33	12,0392	10,8353	57,29	96,061
45	0,328	3,9615	4	15,8462	14,2615	75,41	188,226
60	0,354	4,2949	4	17,1795	15,4615	81,76	222,9225

Formula A Replikasi III

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,241	2,8462	1	2,8462	2,5615	13,42	6,4038
10	0,298	3,5769	1	3,5769	3,2192	16,87	14,4518
20	0,673	8,3846	1	8,3846	7,5462	39,54	53,827
30	0,257	3,0513	4	12,2051	10,9846	57,55	92,654
45	0,295	3,5385	4	14,1538	12,7385	66,74	177,9233
60	0,343	4,1538	4	16,6154	14,9538	78,35	207,6923

Formula B Replikasi I

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,177	2,03	1	2,0256	1,8231	9,57	4,5578
10	0,309	3,72	1	3,7179	3,3462	17,57	12,9233
20	0,44	5,40	1	5,3974	4,8577	25,51	41,0195
30	0,245	2,90	4	11,5897	10,4308	54,78	76,4425
45	0,296	3,55	4	14,2051	12,7846	67,14	174,1155
60	0,342	4,14	4	16,5641	14,9077	78,29	207,6923

Formula B Replikasi II

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,18	2,06	1	2,0641	1,8577	9,63	4,6443
10	0,313	3,77	1	3,7692	3,3923	17,59	13,125
20	0,451	5,54	1	5,5385	4,9846	25,85	41,8845
30	0,253	3,00	4	12,0000	10,8000	56,00	78,923
45	0,305	3,67	4	14,6667	13,2000	68,44	180
60	0,348	4,22	4	16,8718	15,1846	78,73	212,8845

Formula B Replikasi III

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,183	2,10	1	2,1026	1,8923	9,85	4,7308
10	0,304	3,65	1	3,6538	3,2885	17,12	12,952
20	0,499	6,15	1	6,1538	5,5385	28,84	44,135
30	0,26	3,09	4	12,3590	11,1231	57,92	83,308
45	0,299	3,59	4	14,3590	12,9231	67,29	180,3465
60	0,355	4,31	4	17,2308	15,5077	80,75	213,231

Formula C Replikasi I

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,326	3,9359	1	3,9359	3,5423	18,23	8,8558
10	0,586	7,2692	1	7,2692	6,5423	33,67	25,2115
20	0,274	3,2692	4	13,0769	11,7692	60,57	91,5575
30	0,318	3,8333	4	15,3333	13,8000	71,02	127,846
45	0,368	4,4744	4	17,8974	16,1077	82,90	224,3078
60	0,423	5,1795	4	20,7179	18,6462	95,97	260,6543

Formula C Replikasi II

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,317	3,8205	1	3,8205	3,4385	18,06	8,5963
10	0,51	6,2949	1	6,2949	5,6654	29,75	22,7598
20	0,758	9,4744	1	9,4744	8,5269	44,77	70,9615
30	0,336	4,0641	4	16,2564	14,6308	76,83	115,7885
45	0,365	4,4359	4	17,7436	15,9692	83,85	229,5
60	0,414	5,0641	4	20,2564	18,2308	95,73	256,5

Formula C Replikasi III

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,385	4,6923	1	4,6923	4,2231	21,89	10,5578
10	0,606	7,5256	1	7,5256	6,7731	35,10	27,4905
20	0,248	2,9359	4	11,7436	10,5692	54,78	86,7115
30	0,315	3,7949	4	15,1795	13,6615	70,81	121,1535
45	0,362	4,3974	4	17,5897	15,8308	82,05	221,1923
60	0,39	4,7564	4	19,0256	17,1231	88,75	247,1543

Formula D Replikasi I

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,561	6,9487	1	6,9487	6,2538	31,28	15,6345
10	0,737	9,2051	1	9,2051	8,2846	41,44	36,346
20	0,315	3,7949	4	15,1795	13,6615	68,34	109,7305
30	0,344	4,1667	4	16,6667	15,0000	75,03	143,3075
45	0,418	5,1154	4	20,4615	18,4154	92,11	250,6155
60	0,428	5,2436	4	20,9744	18,8769	94,42	279,6923

Formula D Replikasi II

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,545	6,7436	1	6,7436	6,0692	29,96	15,1730
10	0,719	8,9744	1	8,9744	8,0769	39,87	35,3653
20	0,296	3,5513	4	14,2051	12,7846	63,10	104,3075
30	0,338	4,0897	4	16,3590	14,7231	72,67	137,5385
45	0,401	4,8974	4	19,5897	17,6308	87,02	242,6543
60	0,439	5,3846	4	21,5385	19,3846	95,68	277,6155

Formula D Replikasi III

Waktu (menit)	Absorbansi	C sampel	FP	C sesungguhnya	Wt	Persen obat terlepas	AUC
5	0,57	7,0641	1	7,0641	6,3577	33,24	15,8943
10	0,77	9,6282	1	9,6282	8,6654	45,31	37,5578
20	0,299	3,5897	4	14,3590	12,9231	67,57	107,9425
30	0,345	4,1795	4	16,7179	15,0462	78,67	139,8465
45	0,402	4,9103	4	19,6410	17,6769	92,42	245,4233
60	0,425	5,2051	4	20,8205	18,7385	97,97	273,1155

LAMPIRAN J

CONTOH PERHITUNGAN

Contoh perhitungan sudut diam:

Formula B:

W persegi panjang = 1,76 gram

W lingkaran = 0,62 gram

Luas persegi panjang = 16,4 x 21,4

= 350,96 cm^2

Luas lingkaran = $\frac{0,62}{1,76}$ x 350,96 = 123,63cm^2

A = л.r^2

r^2 = $\frac{A}{\pi}$

= $\frac{123,63}{3,14}$ = 39,37

r = 6,27 cm

tg α = $\frac{t}{r}$ = $\frac{2,94}{6,27}$ = 0,4685

α = 25,10º

Contoh perhitungan indeks kompresibilitas

Formula B:

Berat Gelas = 126,28 g(W1)

Berat Gelas + granul = 168,88 g(W2)

V1 = 100 ml

V2 = 87,5 ml

$$\text{Bj nyata} = \frac{(W_2 - W_1)}{V_1} = \frac{(168,88 - 126,28)}{100} = 0,426$$

$$\text{Bj mampat} = \frac{(W_2 - W_1)}{V_2} = \frac{(168,88 - 128,28)}{87,5} = 0,4869$$

$$\%\ \text{kompresibilitas} = \left(1 - \frac{Bj.nyata}{Bj.mampat}\right) x100\% = 12,5\%$$

Contoh perhitungan distribusi ukuran partikel :

Dari % frekuensi kumulatif atas no. Mesh 20 (1,52%) pada tabel nilai Z (dalam desimal) = 0,0152 kemudian diinterpolasikan.

Nilai ln d *vs* nilai Z diplot sehingga diperoleh gambar garis distribusi ukuran partikel yang lurus. Dari regresi linier antara nilai ln d *vs* nilai Z diperoleh persamaan garis :

Y= -1,180x + 5,751

r = 0,9700

Diameter rata-rata geometrik (dg) dihitung dengan cara memasukkan nilai Z pada 50% (Z=0) sebagai y pada kalkulator sehingga diperoleh nilai μ = 4,8711, nilai ini kemudian di anti ln sehingga diperoleh nilai: 130,4643μm (sebagai nilai dg). Simpangan baku geometrik (σg) diperoleh dari rumus:

$\sigma g = \sigma 84\% / d50\%$

σ84% diperoleh dari memasukkan nilai Z = 1 sebagai fungsi Y sehingga diperoleh nilai 4,0242 kemudian nilai ini di anti ln= 55,9355μm sehingga diperoleh nilai σg= 2,3324

Contoh perhitungan akurasi & presisi :

Bahan aktif (mg)	Matriks (mg)	+HCl 0,1 N ad	Pipet	Konsentrasi (%)	+ HCl 0,1 N ad	Konsentrasi (ppm)
20	630	500	1,5	100	10	6

Absorbansi = 0,486 → y = 0,0780x + 0,0197

Konsentrasi sebenarnya = 5,99 ppm

Konsentrasi teoritis = 6,00 ppm

% perolehan kembali = (konsentrasi sebenarnya/konsentrasi teoritis) x100%

= (5,99/6,03) x 100%

= 99,79 %

Untuk menghitung % KV = $\frac{SD}{\overline{X}} x100\%$

= 0,96 %

Contoh perhitungan % obat terlarut:

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

Formula A replikasi 1 pada t = 45 menit

% obat terlepas = $\frac{11,3538}{\frac{97,07}{100} \times 20} \times 100\% = 58,48\%$

Contoh perhitungan AUC pada disolusi:

Rumus: $\frac{W_{tn} - W_{tn-1}}{2} x(t_n - t_{n-1})$

Formula B *batch* 1 :

Wt_{n-1} = 0,3923
Wt_n = 1,8231
t_n = 5 menit
t_{n-1} = 2 menit

AUC = $\frac{1,8231 + 0,3923}{2} x(5-2) = 3,3231$

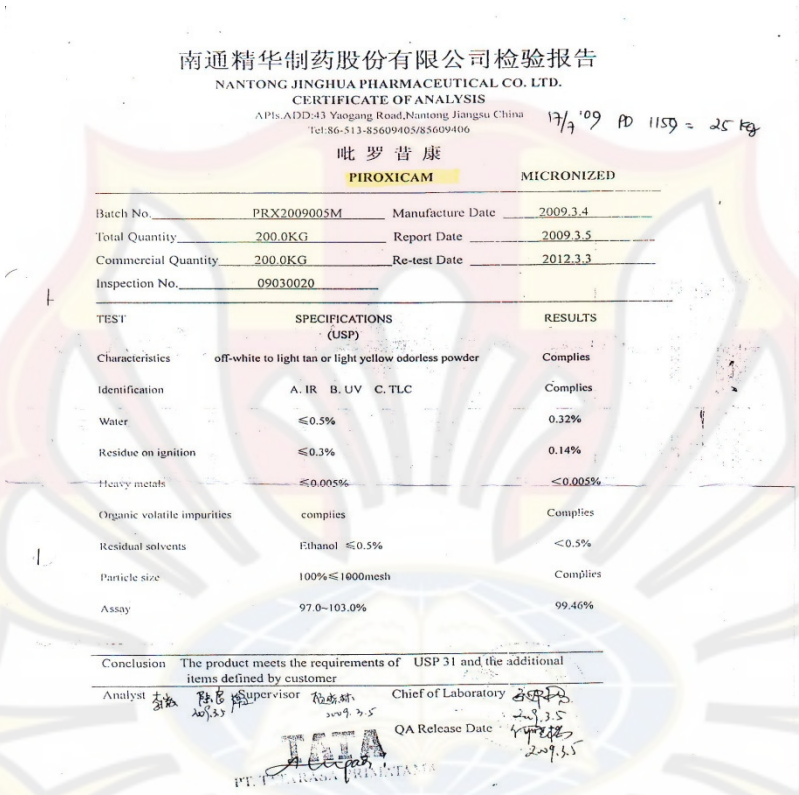
Luas □ = 60 x penetapan kadar x dosis
= 60 x 95,21% x 20 mg
= 1142,52

% ED Formula B *batch* 1 = (∑ AUC / luas □) x 100%
= (515,9084/1142,52) x 100%
= 45,16 %

LAMPIRAN K

SERTIFIKAT ANALISIS BAHAN

Piroksikam :



南通精华制药股份有限公司检验报告

NANTONG JINGHUA PHARMACEUTICAL CO. LTD.

CERTIFICATE OF ANALYSIS

APIs.ADD:43 Yaogang Road,Nantong Jiangsu China
Tel:86-513-85609405/85609406

17/7 '09 PD 1159 = 25 kg

吡 罗 昔 康

PIROXICAM MICRONIZED

Batch No.	PRX2009005M	Manufacture Date	2009.3.4
Total Quantity	200.0KG	Report Date	2009.3.5
Commercial Quantity	200.0KG	Re-test Date	2012.3.3
Inspection No.	09030020		

TEST	SPECIFICATIONS (USP)	RESULTS
Characteristics	off-white to light tan or light yellow odorless powder	Complies
Identification	A. IR B. UV C. TLC	Complies
Water	≤0.5%	0.32%
Residue on ignition	≤0.3%	0.14%
Heavy metals	≤0.005%	<0.005%
Organic volatile impurities	complies	Complies
Residual solvents	Ethanol ≤0.5%	<0.5%
Particle size	100%≤1000mesh	Complies
Assay	97.0~103.0%	99.46%

Conclusion The product meets the requirements of USP 31 and the additional items defined by customer

Analyst Supervisor Chief of Laboratory

QA Release Date

Avicel PH 102 :

ASAHI KASEI CHEMICALS CORPORATION

Date: 28-AUG-2009
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

YOUR NO.: BYUE-09-5298-0078

104/13B/1/10

CERTIFICATE OF ANALYSIS

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

Trade name : **CEOLUS®**

Grade : **PH-102** **Lot No. 2965 (183bags)**

Manufacturing Date: 24-JUN-2009
Re-evaluation Date: 24-JUN-2012

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	3.5
Water-soluble substances (mg)	NMT 12.5	5.6
Ether-soluble substances (mg)	NMT 5.0	1.1
Conductivity (μ S/cm)	NMT 75	26
Heavy metals (ppm)	NMT 10	NMT 10
Solubility	Passes	Passes
Residue on ignition (%)	NMT 0.1	0.02
Bulk density (g/cm^3)	0.28 - 0.33	0.316
pH	5.0 - 7.5	6.1
Total aerobic microbial count (cfu/g)	NMT 1000	Passes
Tota' 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 μ m (60 mesh)	LT 8.0	0.3
Particle size, wt. % >150 μ m (100 mesh)	20 - 40	29

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.

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 batch on its own responsibility.

Shuji Onishi

Shuji ONISHI
Manager
Quality Assurance Section
CEOLUS Production Department

Sodium Starch Glycolate :

YUNG ZIP CHEMICAL IND. CO., LTD.
59, Yu Shih Road
Youth Industrial District
Tachia, Taiwan, 437
R.O.C.
TEL: 886-4-26818780, 26811344 FAX: 886-4-26812911

CERTIFICATE OF ANALYSIS

D S T
(Sodium Starch Glycolate)

Lot No.: SSGA02121 Mfg. Date: Nov. 29, 2007
Analysis Following USP 30-NF 25 Exp. Date: Nov. 28, 2010

ITEMS	SPECIFICATIONS	RESULTS
Description	A white, tasteless, odorless, relatively free-flowing powder.	Confirmed
Identification	USP 30/NF 25	Confirmed
Microbial limits	Salmonella E. Coli	Negative Negative
pH	Between 5.5 and 7.5	6.1
Loss on drying	Not more than 10.0 %	2.5 %
Iron	Not more than 0.002 %	Passed
Heavy metals	Not more than 0.002 %	Passed
Sodium chloride	Not more than 7.0 %	4.0 %
Sodium glycolate	Not more than 2.0 %	1.8 %
Assay	Sodium (Na) (2.8% to 4.2%)	3.2 %

Conclusion : Passed

Chien-Sheng Tseng
Director Quality Assurance

12/28/07
Date

12/28/2007/40053

Magnesium Stearat :

PETER GREVEN
Partner der Industrie

QUALITÄTSMANAGEMENT

CERTIFICATE OF ANALYSIS

customer: PT BRATACO
contact person:
FAX:
your order-number: PTB0735/V1104 **our order-number:** 4011746
delivered on: 04.08.2004 **quantity:** 9000
brand: LIGA MAGNESIUM STEARATE MF-2-V VEGETABLE **charge-no.** C447176
manufacturing date: 2004-07-19 **expiry date:** 2006-07-19

product is in accordance with the USP27/NF22/BP2003/Ph.Eur 4rd ed./DAB10/JP 14th. ed./FCC 5th. ed.

parameter	unit	method	result
ntification A	oC	Ph.Eur	59
stion A	metal reaction	USP/NF	passes test
tification B	retention time GC	USP/NF	retentions match
idity or	ml 0,01N HCl	Ph.Eur	<0,5
alinity	ml 0.01 N NaOH	Ph.Eur	<0,5
avy metals as Pb	ppm	JP	<20
ad	ppm	BAE 300-B	<1
dmium	ppm	BAE 300-B	<1
ckel	ppm	BAE 300-B	<1
hloride	%	Ph.Eur	<0,1
ulfate	%	Ph.Eur	<0,5
cid value of the fatty acid	mg KOH/g	Ph.Eur	204,8
lative content of stearic acid	%	USP/NF	65,1
n. cont. of stearic and palmetic acid	%	USP/NF	98,9
erobic microbial count	cfu/g	USP/NF	<10
lds & Yeasts	cfu/g	USP/NF	105
scherichia coli	cfu/g	USP/NF	absent
lmonella Species	cfu/g	USP/NF	absent
ganic volatile impurties		USP/NF	meets USP/NF
es on drying	%	BAE 600	3,9
agnesium content	%	BAE 200 o	4,7
ee fatty acid	%	BAE 400	0,6
ave rosidue at 200 mesh	%	BAE 605	0,2
lk density tapped	g/ml	BAE 611a	0,32
ecific surface area BET	qm/g	USP/NF	10,0
ntamination		BAE 601	in accordance

Venlo, 27.08.04

datas of the obove mentioned delivery are based upon careful test according to the guidlines of our ity assurance system. They do not release the customer from entry control. Besides we do not garantee ical properties for concrete applications.
certificate was issued by EDV and does not bear a signature.

BRATACO

LAMPIRAN L

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

LAMPIRAN M

TABEL UJI HSD (0,05)

d.k. \ k	2	3	4	5	6	7	8	9	10	11
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99	7.17
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49	6.65
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16	6.30
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92	6.05
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74	5.87
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60	5.72
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49	5.61
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39	5.51
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32	5.43
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25	5.36
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20	5.31
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15	5.26
17	2.98	3.63	4.02	4.30	4.52	4.71	4.86	4 99	5.11	5.21
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07	5.17
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04	5.14
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01	5.11
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92	5.01
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82	4.92
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73	4.82
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65	4.73
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56	4.64
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47	4.55

Catatan kaki: Dari *Annals of mathematical statistics.* Diulang cetak seizin penerbit, The Institute of Mathematical Statistics.

Sumber: Schefler (1987).

LAMPIRAN N

TABEL Z

z	0	1	2	3	4	5	6	7	8	9
.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
.7	.7580	.7611	.7642	.7673	.7703	.7734	.7764	.7794	.7823	.7852
.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9278	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9430	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9615	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9648	.9656	.9664	.9671	.9678	.9686	.9693	.9700	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9762	.9767
2.0	.9772	.9778	.9783	.9788	.9793	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9874	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.	.9987	.9990	.9993	.9995	.9997	.9998	.9998	.9999	.9999	1.0000

z	0	1	2	3	4	5	6	7	8	9
-3.	.0013	.0010	.0007	.0005	.0003	.0002	.0002	.0001	.0001	.0000
-2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
-2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
-2.7	.0035	.0034	.0033	.0032	.0021	.0030	.0029	.0028	.0027	.0026
-2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
-2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
-2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
-2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
-2.2	.0139	.0136	.0132	.0129	.0126	.0122	.0119	.0116	.0113	.0110
-2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
-2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
-1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0238	.0233
-1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0300	.0294
-1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
-1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
-1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0570	.0559
-1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
-1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
-1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
-1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
-1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
-.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
-.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
-.7	.2420	.2389	.2358	.2327	.2297	.2266	.2236	.2206	.2177	.2148
-.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
-.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
-.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
-.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
-.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
-.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
-.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641

Dikutip dari: Gennaro, A.R. (1970)

LAMPIRAN O

TABEL F

Tabel F

Tabel VII Nilai gawat dari *F*

F yang diperoleh adalah benar jika area yang diperhatikan jika nilai *F* itu *sama atau lebih besar dari pada* nilai yang dinyatakan dalam tabel.
Baris pertama pada setiap pasangan baris adalah titik pada distribusi *F* untuk area 0,05; baris kedua untuk area 0,01.

Derajat kebebasan untuk pembilang (rataan kuadrat yang lebih besar)																											
Derajat kebebasan untuk penyebut (rataan kuadrat yang lebih kecil)	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 4052	200 4999	216 5403	225 5625	230 5764	234 5859	237 5928	239 5981	241 6022	242 6056	243 6082	244 6106	245 6142	246 6169	248 6208	249 6234	250 6258	251 6286	252 6302	253 6323	253 6334	254 6352	254 6361	254 6366
2	18.51 98.49	19.00 99.01	19.16 99.17	19.25 99.25	19.30 99.30	19.33 99.33	19.36 99.34	19.37 99.36	19.38 99.38	19.39 99.40	19.40 99.41	19.41 99.42	19.42 99.43	19.43 99.44	19.44 99.45	19.45 99.46	19.46 99.47	19.47 99.48	19.47 99.48	19.48 99.49	19.49 99.49	19.49 99.49	19.50 99.50	19.50 99.50
3	10.13 34.12	9.55 30.81	9.28 29.46	9.12 28.71	9.01 28.24	8.94 27.91	8.88 27.67	8.84 27.49	8.81 27.34	8.78 27.23	8.76 27.13	8.74 27.05	8.71 26.92	8.69 26.83	8.66 26.69	8.64 26.60	8.62 26.50	8.60 26.41	8.58 26.35	8.57 26.27	8.56 26.23	8.54 26.18	8.54 26.14	8.53 26.12
4	7.71 21.20	6.94 18.00	6.59 16.69	6.39 15.98	6.26 15.52	6.16 15.21	6.09 14.98	6.04 14.80	6.00 14.66	5.96 14.54	5.93 14.45	5.91 14.37	5.87 14.24	5.84 14.15	5.80 14.02	5.77 13.93	5.74 13.83	5.71 13.74	5.70 13.69	5.68 13.61	5.66 13.57	5.65 13.52	5.64 13.48	5.63 13.46
5	6.61 16.26	5.79 13.27	5.41 12.06	5.19 11.39	5.05 10.97	4.95 10.67	4.88 10.45	4.82 10.27	4.78 10.15	4.74 10.05	4.70 9.96	4.68 9.89	4.64 9.77	4.60 9.68	4.56 9.55	4.53 9.47	4.50 9.38	4.46 9.29	4.44 9.24	4.42 9.17	4.40 9.13	4.38 9.07	4.37 9.04	4.36 9.02
6	5.99 13.74	5.14 10.92	4.76 9.78	4.53 9.15	4.39 8.75	4.28 8.47	4.21 8.26	4.15 8.10	4.10 7.98	4.06 7.87	4.03 7.79	4.00 7.72	3.96 7.60	3.92 7.52	3.87 7.39	3.84 7.31	3.81 7.23	3.77 7.14	3.75 7.09	3.72 7.02	3.71 6.99	3.69 6.94	3.68 6.90	3.67 6.88
7	5.59 12.25	4.74 9.55	4.35 8.45	4.12 7.85	3.97 7.46	3.87 7.19	3.79 7.00	3.73 6.84	3.68 6.71	3.63 6.62	3.60 6.54	3.57 6.47	3.52 6.35	3.49 6.27	3.44 6.15	3.41 6.07	3.38 5.98	3.34 5.90	3.32 5.85	3.29 5.78	3.28 5.75	3.25 5.70	3.24 5.67	3.23 5.65
8	5.32 11.26	4.46 8.65	4.07 7.59	3.84 7.01	3.69 6.63	3.58 6.37	3.50 6.19	3.44 6.03	3.39 5.91	3.34 5.82	3.31 5.74	3.28 5.67	3.23 5.56	3.20 5.48	3.15 5.36	3.12 5.28	3.08 5.20	3.05 5.11	3.03 5.06	3.00 5.00	2.98 4.96	2.96 4.91	2.94 4.88	2.93 4.86
9	5.12 10.56	4.26 8.02	3.86 6.99	3.63 6.42	3.48 6.06	3.37 5.80	3.29 5.62	3.23 5.47	3.18 5.35	3.13 5.26	3.10 5.18	3.07 5.11	3.02 5.00	2.98 4.92	2.93 4.80	2.90 4.73	2.86 4.64	2.82 4.56	2.80 4.51	2.77 4.45	2.76 4.41	2.73 4.36	2.72 4.33	2.71 4.31
10	4.96 10.04	4.10 7.56	3.71 6.55	3.48 5.99	3.33 5.64	3.22 5.39	3.14 5.21	3.07 5.06	3.02 4.95	2.97 4.85	2.94 4.78	2.91 4.71	2.86 4.60	2.82 4.52	2.77 4.41	2.74 4.33	2.70 4.25	2.67 4.17	2.64 4.12	2.61 4.05	2.59 4.01	2.56 3.96	2.55 3.93	2.54 3.91
11	4.84 9.65	3.98 7.20	3.59 6.22	3.36 5.67	3.20 5.32	3.09 5.07	3.01 4.88	2.95 4.74	2.90 4.63	2.86 4.54	2.82 4.46	2.79 4.40	2.74 4.29	2.70 4.21	2.65 4.10	2.61 4.02	2.57 3.94	2.53 3.86	2.50 3.80	2.47 3.74	2.45 3.70	2.42 3.66	2.41 3.62	2.40 3.60
12	4.75 9.33	3.88 6.93	3.49 5.95	3.26 5.41	3.11 5.06	3.00 4.82	2.92 4.65	2.85 4.50	2.80 4.39	2.76 4.30	2.72 4.22	2.69 4.16	2.64 4.05	2.60 3.98	2.54 3.86	2.50 3.78	2.46 3.70	2.42 3.61	2.40 3.56	2.36 3.49	2.35 3.46	2.32 3.41	2.31 3.38	2.30 3.36
13	4.67 9.07	3.80 6.70	3.41 5.74	3.18 5.20	3.02 4.86	2.92 4.62	2.84 4.44	2.77 4.30	2.72 4.19	2.67 4.10	2.63 4.02	2.60 3.96	2.55 3.85	2.51 3.78	2.46 3.67	2.42 3.59	2.38 3.51	2.34 3.42	2.32 3.37	2.28 3.30	2.26 3.27	2.24 3.21	2.22 3.18	2.21 3.16
14	4.60 8.86	3.74 6.51	3.34 5.56	3.11 5.03	2.96 4.69	2.85 4.46	2.77 4.28	2.70 4.14	2.65 4.03	2.60 3.94	2.56 3.86	2.53 3.80	2.48 3.70	2.44 3.62	2.39 3.51	2.35 3.43	2.31 3.34	2.27 3.26	2.24 3.21	2.21 3.14	2.19 3.11	2.16 3.06	2.14 3.02	2.13 3.00
15	4.54 8.68	3.68 6.36	3.29 5.42	3.06 4.89	2.90 4.56	2.79 4.32	2.70 4.14	2.64 4.00	2.59 3.89	2.55 3.80	2.51 3.73	2.48 3.67	2.43 3.56	2.39 3.48	2.33 3.36	2.29 3.29	2.25 3.20	2.21 3.12	2.18 3.07	2.15 3.00	2.12 2.97	2.10 2.92	2.08 2.89	2.07 2.87

Lanjutan

Tabel VII (*lanjutan*)

Baris pertama pada setiap pasangan baris adalah titik pada distribusi *F* untuk area 0,05; baris kedua untuk area 0,01.

Derajat kebebasan untuk rataan kuadrat yang lebih kecil	Derajat kebebasan untuk rataan kuadrat yang lebih besar																					
	1	2	3	4	5	6	7	8	9	10	11	12	14	16	20	24	30	40	50	75	100	200	500	∞
16	4.49 8.53	3.63 6.23	3.24 5.29	3.01 4.77	2.85 4.44	2.74 4.20	2.66 4.03	2.59 3.89	2.54 3.78	2.49 3.69	2.45 3.61	2.42 3.55	2.37 3.45	2.33 3.37	2.28 3.26	2.24 3.18	2.20 3.10	2.16 3.01	2.13 2.96	2.09 2.89	2.07 2.86	2.04 2.80	2.02 2.77	2.01 2.75
17	4.45 8.40	3.59 6.11	3.20 5.18	2.96 4.67	2.81 4.34	2.70 4.10	2.62 3.93	2.55 3.79	2.50 3.68	2.45 3.59	2.41 3.52	2.38 3.45	2.33 3.35	2.29 3.27	2.23 3.16	2.19 3.08	2.15 3.00	2.11 2.92	2.08 2.86	2.04 2.79	2.02 2.76	1.99 2.70	1.97 2.67	1.96 2.65
18	4.41 8.28	3.55 6.01	3.16 5.09	2.93 4.58	2.77 4.25	2.66 4.01	2.58 3.85	2.51 3.71	2.46 3.60	2.41 3.51	2.37 3.44	2.34 3.37	2.29 3.27	2.25 3.19	2.19 3.07	2.15 3.00	2.11 2.91	2.07 2.83	2.04 2.78	2.00 2.71	1.98 2.68	1.95 2.62	1.93 2.59	1.92 2.57
19	4.38 8.18	3.52 5.93	3.13 5.01	2.90 4.50	2.74 4.17	2.63 3.94	2.55 3.77	2.48 3.63	2.43 3.52	2.38 3.43	2.34 3.36	2.31 3.30	2.26 3.19	2.21 3.12	2.15 3.00	2.11 2.92	2.07 2.84	2.02 2.76	2.00 2.70	1.96 2.63	1.94 2.60	1.91 2.54	1.90 2.51	1.88 2.49
20	4.35 8.10	3.49 5.85	3.10 4.94	2.87 4.43	2.71 4.10	2.60 3.87	2.52 3.71	2.45 3.56	2.40 3.45	2.35 3.37	2.31 3.30	2.28 3.23	2.23 3.13	2.18 3.05	2.12 2.94	2.08 2.86	2.04 2.77	1.99 2.69	1.96 2.63	1.92 2.56	1.90 2.53	1.87 2.47	1.85 2.44	1.84 2.42
21	4.32 8.02	3.47 5.78	3.07 4.87	2.84 4.37	2.68 4.04	2.57 3.81	2.49 3.65	2.42 3.51	2.37 3.40	2.32 3.31	2.28 3.24	2.25 3.17	2.20 3.07	2.15 2.99	2.09 2.88	2.05 2.80	2.00 2.72	1.96 2.63	1.93 2.58	1.89 2.51	1.87 2.47	1.84 2.42	1.82 2.38	1.81 2.36
22	4.30 7.94	3.44 5.72	3.05 4.82	2.82 4.31	2.66 3.99	2.55 3.76	2.47 3.59	2.43 3.45	2.35 3.35	2.30 3.26	2.26 3.18	2.23 3.12	2.18 3.02	2.13 2.94	2.07 2.83	2.03 2.75	1.98 2.67	1.93 2.58	1.91 2.53	1.87 2.46	1.84 2.42	1.81 2.37	1.80 2.33	1.78 2.31
23	4.28 7.88	3.42 5.66	3.03 4.76	2.80 4.26	2.64 3.94	2.53 3.71	2.45 3.54	2.38 3.41	2.32 3.30	2.28 3.21	2.24 3.14	2.20 3.07	2.14 2.97	2.10 2.89	2.04 2.78	2.00 2.70	1.96 2.62	1.91 2.53	1.88 2.48	1.84 2.41	1.82 2.37	1.79 2.32	1.77 2.28	1.76 2.26
24	4.26 7.82	3.40 5.61	3.01 4.72	2.78 4.22	2.62 3.90	2.51 3.67	2.43 3.50	2.36 3.36	2.30 3.25	2.26 3.17	2.22 3.09	2.18 3.03	2.13 2.93	2.09 2.86	2.02 2.74	1.98 2.66	1.94 2.58	1.89 2.49	1.86 2.44	1.82 2.36	1.80 2.33	1.76 2.27	1.74 2.23	1.73 2.21
25	4.24 7.77	3.38 5.57	2.99 4.68	2.76 4.18	2.60 3.86	2.49 3.63	2.41 3.46	2.34 3.32	2.28 3.21	2.24 3.13	2.20 3.06	2.16 2.99	2.11 2.89	2.06 2.81	2.00 2.70	1.96 2.62	1.92 2.54	1.87 2.45	1.84 2.40	1.80 2.32	1.77 2.29	1.74 2.23	1.72 2.19	1.71 2.17
26	4.22 7.72	3.37 5.53	2.98 4.64	2.74 4.14	2.59 3.82	2.47 3.59	2.39 3.42	2.32 3.29	2.27 3.17	2.22 3.09	2.18 3.02	2.15 2.96	2.10 2.86	2.05 2.77	1.99 2.66	1.95 2.58	1.90 2.50	1.85 2.41	1.82 2.36	1.78 2.28	1.76 2.25	1.72 2.19	1.70 2.15	1.69 2.13
27	4.21 7.68	3.35 5.49	2.96 4.60	2.73 4.11	2.57 3.79	2.46 3.56	2.37 3.39	2.30 3.26	2.25 3.14	2.20 3.06	2.16 2.98	2.13 2.93	2.08 2.83	2.03 2.74	1.97 2.63	1.93 2.55	1.88 2.47	1.84 2.38	1.80 2.33	1.76 2.25	1.74 2.21	1.71 2.16	1.68 2.12	1.67 2.10
28	4.20 7.64	3.34 5.45	2.95 4.57	2.71 4.07	2.56 3.76	2.44 3.53	2.36 3.36	2.29 3.23	2.24 3.11	2.19 3.03	2.15 2.95	2.12 2.90	2.06 2.80	2.02 2.71	1.96 2.60	1.91 2.52	1.87 2.44	1.81 2.35	1.78 2.30	1.75 2.22	1.72 2.18	1.69 2.13	1.67 2.09	1.65 2.06
29	4.18 7.60	3.33 5.42	2.93 4.54	2.70 4.04	2.54 3.73	2.43 3.50	2.35 3.33	2.28 3.20	2.22 3.08	2.18 3.00	2.14 2.92	2.10 2.87	2.05 2.77	2.00 2.68	1.94 2.57	1.90 2.49	1.85 2.41	1.80 2.32	1.77 2.27	1.73 2.19	1.71 2.15	1.68 2.10	1.65 2.06	1.64 2.03
30	4.17 7.56	3.32 5.39	2.92 4.51	2.69 4.02	2.53 3.70	2.42 3.47	2.34 3.30	2.27 3.17	2.21 3.06	2.16 2.98	2.12 2.90	2.09 2.84	2.04 2.74	1.99 2.66	1.93 2.55	1.89 2.47	1.84 2.38	1.79 2.29	1.76 2.24	1.72 2.16	1.69 2.13	1.66 2.07	1.64 2.03	1.62 2.01

(*bersambung*)

Dikutip dari: Schefler (1987)

LAMPIRAN P

HASIL UJI STATISTIK KEKERASAN TABLET ANTAR FORMULA

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	*3*	*48,45833*	16,15278	0,065023
Column 2	*3*	*31,14167*	10,38056	21,87079
Column 3	*3*	*48,91*	16,30333	3,33E-05
Column 4	*3*	*40,61833*	13,53944	0,964034

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	*69,65076*	*3*	23,21692	4,055379	0,050303	4,066181
Within Groups	*45,79976*	*8*	5,72497			
Total	*115,4505*	*11*				

Keterangan :

F hitung < Ftabel (4,07) sehingga H diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN Q

HASIL UJI STATISTIK KERAPUHAN TABLET ANTAR FORMULA

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	3	0.165	0.055	0.006825
Column 2	3	0.368	0.122667	0.021
Column 3	3	0.1	0.033333	0.000133
Column 4	3	0.337	0.112333	0.026546

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.016998	3	0.005666	0.415807	0.746474	4.066181
Within Groups	0.10901	8	0.013626			
Total	0.126008	11				

Keterangan :

F hitung < Ftabel (4,07) sehingga H diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN R

HASIL UJI STATISTIK WAKTU HANCUR TABLET ANTAR FORMULA

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	3	4	1.333333	0.333333
Column 2	3	4	1.333333	0.333333
Column 3	3	4	1.333333	0.333333
Column 4	3	3	1	0

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.25	3	0.083333	0.333333	0.801809	4.066181
Within Groups	2	8	0.25			
Total	2.25	11				

Keterangan :

F hitung < Ftabel (4,07) sehingga H diterima dan tidak ada perbedaan bermakna antar formula

LAMPIRAN S

HASIL UJI STATISTIK DISTRIBUSI UKURAN PARTIKEL TABLET ANTAR FORMULA

Anova : Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	3	301,539	100,513	5,716448
Column 2	3	378,7199	126,2399667	13,73872
Column 3	3	337,8377	112,6125667	19,81501
Column 4	3	318,2222	106,0740667	21,38229

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	1105,742	3	368,5808314	24,30772	0,000226	4,066181
Within Groups	121,3049	8	15,1631156			
Total	1227,047	11				

Keterangan :

F hitung > Ftabel (4,07) sehingga H ditolak dan ada perbedaan bermakna antar formula

Perlakuan	Mean	FA	FB		FC		FD	
		100,513	126,24		112,6126		106,0741	
FA	100,513	0	25,72697	*	12,09957	*	5,561067	*
FB	126,24		0		-13,6274	*	-20,1659	*
FC	112,6126				0		-6,5385	*
FD	106,0741						0	

Keterangan:
NIlai HSD= 7,87
* : perbedaannya signifikan karena selisihnya > nilai HSD

LAMPIRAN T

HASIL UJI STATISTIK PENETAPAN KADAR TABLET

LIKUISOLID PIROKSIKAM ANTAR FORMULA

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	3	287,06	95,68667	1,624433
Column 2	3	287,66	95,88667	0,385433
Column 3	3	288,84	96,28	0,9583
Column 4	3	296,89	98,96333	8,782233

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	20,96209	3	6,987364	2,378596	0,145527	4,066181
Within Groups	23,5008	8	2,9376			
Total	44,46289	11				

Keterangan :

F hitung < Ftabel (4,07) sehingga H diterima dan tidak ada perbedaan bermakna antar formula.

LAMPIRAN U

HASIL UJI STATISTIK DISOLUSI BERDASARKAN

% ED TABLET ANTAR FORMULA

Anova: Single Factor

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	3	142,11	47,37	18,2647
Column 2	3	137,68	45,89333	0,579733
Column 3	3	186,5	62,16667	0,876133
Column 4	3	209,1	69,7	5,0673

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	1206,06	3	402,0202	64,8737	5,89E-06	4,066181
Within Groups	49,57573	8	6,196967			
Total	1255,636	11				

Keterangan:

F hitung > Ftabel (4,07) sehingga H ditolak dan ada perbedaan bermakna antar formula.

Perlakuan	Mean	FA		FB		FC		FD	
		47,37		45,89333		62,16667		69,7	
FA	47,37	0		-1,47667	*	14,79667		22,33	
FB	45,89333			0		16,27333	*	23,80667	*
FC	62,16667					0		7,533333	
FD	69,7							0	

Keterangan:
Nilai HSD = 5,02859
*: perbedaannya signifikan karena selisihnya > nilai HSD

LAMPIRAN V

UJI F KURVA BAKU PENETAPAN KADAR

Uji Kesamaan Regresi (HCl)

REPLIKASI 1

Konsentrasi	Absorbansi	X^2	Y^2	XY
2,064	0,188	4,2601	0,0353	0,3880
4,128	0,388	17,0404	0,1505	1,6017
6,192	0,478	38,3409	0,2285	2,9598
8,256	0,624	68,1615	0,3894	5,1517
10,32	0,841	106,5024	0,7073	8,6791
		234,3053	1,5110	18,7803

REPLIKASI 2

Konsentrasi	Absorbansi	X^2	Y^2	XY
2,08	0,19	4,3264	0,0361	0,3952
4,16	0,346	17,3056	0,1197	1,4394
6,24	0,498	38,9376	0,2480	3,1075
8,32	0,649	69,2224	0,4212	5,3997
10,4	0,85	108,1600	0,7225	8,8400
		237,9520	1,5475	19,1818

REPLIKASI 3

Konsentrasi	Absorbansi	X^2	Y^2	XY
2,052	0,208	4,2107	0,0433	0,4268
4,104	0,377	16,8428	0,1421	1,5472
6,156	0,509	37,8963	0,2591	3,1334
8,208	0,692	67,3713	0,4789	5,6799
10,26	0,848	105,2676	0,7191	8,7005
		231,9520	1,6424	19,4878

	$\sum X^2$	$\sum XY$	$\sum Y^2$	N	SSi	RDF
Regresi I	234,3053	18,7803	1,5110	5	1,4309	4
Regresi II	237,9520	19,1818	1,5475	5	1,4669	4
Regresi III	2331,5887	19,4878	1,6424	5	1,5583	4
	703,8460	57,4499	4,7010		4,4561	

SSc = 4,619369117

F = 0,219867029 < Ftabel0,05 (2;12) 3,89