

LAMPIRAN A
STANDARISASI EKSTRAK PARAMETRIK dan NON
PARAMETRIK

1. Hasil Penentuan pH

Replikasi	Ekstrak kering bawang putih	Ekstrak kering seledri	Ekstrak kering campuran
I	5,92	5,86	6,22
II	6,09	5,87	6,20
III	6,06	5,86	6,22
$\bar{x} \pm SD$	$6,02 \pm 0,09$	$5,86 \pm 0,01$	$6,21 \pm 0,01$

2. Hasil Penentuan Titik Leleh

Replikasi	Ekstrak kering bawang putih	Ekstrak kering seledri	Ekstrak kering campuran
I	162,3	230,4	162,5
II	162,4	230,3	162,3
III	162,3	230,3	162,3
$\bar{x} \pm SD$	$162,3 \pm 0,06$	$230,3 \pm 0,06$	$162,4 \pm 0,11$

3. Hasil Penentuan Kadar Senyawa Larut Air

Tanaman	Replikasi	Berat cawan(g)	Berat ekstrak (g)	Pemanasan I	Pemanasan II	% kadar
Bawang putih	1	106,5533	5,0021	107,5075	107,5033	94,96
	2	90,4603	5,0017	91,4397	91,4368	97,62
	3	40,8776	5,0011	41,8355	41,8317	95,40
	$\bar{x} \pm SD$					$95,99 \pm 1,43$
Seledri	1	27,4017	5,0019	28,3087	28,3083	90,62
	2	56,7955	5,0022	57,7099	57,7091	91,33
	3	35,0844	5,0027	36,0043	36,0026	91,77
	$\bar{x} \pm SD$					$90,91 \pm 0,58$
Campuran	1	33,1687	5,0008	34,1473	34,1467	97,78
	2	35,5430	5,0011	36,5125	36,5102	96,70
	3	50,2234	5,0003	51,1877	51,1846	96,11
	$\bar{x} \pm SD$					$96,86 \pm 0,85$

Contoh Perhitungan:

Ekstrak kering bawang putih replikasi 1:

$$\text{Berat ekstrak}/5 = 5,0021/5$$

$$= 1,0004 \text{ g}$$

$$\begin{aligned}\% \text{ kadar} &= \frac{\text{berat pemanasan terakhir}-\text{berat cawan kosong}}{\text{berat ekstrak}} \times 100\% \\ \% \text{ kadar} &= \frac{(107,5033-106,5533)}{1,0004} \times 100\% \\ &= 94,96\%\end{aligned}$$

4. Hasil Penentuan Kadar Senyawa Larut Etanol

Tanaman	Replikasi	Berat cawan(g)	Berat ekstrak (g)	Pemanasan I	Pemanasan II	% kadar
Bawang putih	1	69,9000	5,0020	70,2760	70,2772	37,70
	2	106,6746	5,0017	107,0341	107,0315	35,68
	3	50,1960	5,0023	50,5716	50,5703	37,41
	$\bar{x} \pm SD$					$36,93 \pm 0,97$
Seledri	1	33,1270	5,0017	33,2793	33,2784	15,14
	2	29,4457	5,0014	29,5963	29,5947	14,89
	3	42,0363	5,0018	42,1935	42,1908	15,44
	$\bar{x} \pm SD$					$15,16 \pm 0,27$
Campuran	1	74,6383	5,0013	74,8137	74,8112	17,28
	2	42,6419	5,0019	42,8329	42,8324	19,04
	3	66,3629	5,0007	66,5597	66,5586	19,57
	$\bar{x} \pm SD$					$18,63 \pm 1,20$

Contoh Perhitungan:

Ekstrak kering bawang putih replikasi 1:

$$\text{Berat ekstrak/5} = 5,0020/5$$

$$= 1,0004 \text{ g}$$

$$\% \text{ kadar} = \frac{\text{berat pemanasan terakhir} - \text{berat cawan kosong}}{\text{berat ekstrak/5}} \times$$

$$100\%$$

$$\begin{aligned} \% \text{ kadar} &= \frac{(70,2772 - 69,9000)}{1,0004} \times 100\% \\ &= 37,70\% \end{aligned}$$

5. Hasil Penentuan Ukuran Partikel

a) Ekstrak Kering Bawang Putih

Replikasi	No mesh	d (μm)	ln d (μm)	Berat granul yang tertahan (g)	% bobot	% FKB	Nilai z
1	20	850	6,7452	0,03	0,03	99,93	3,02
	40	425	6,0529	0,24	0,24	99,69	2,74
	60	250	5,5215	1,43	1,43	98,26	2,11
	80	180	5,193	3,82	3,82	94,42	1,59
	100	150	5,0106	1,66	1,66	92,78	1,46
	120	125	4,8283	4,15	4,15	88,63	1,21
	0	0		88,63	88,63	-	-
	Σ			99,96			
2	20	850	6,7452	0,06	0,06	99,96	3,04
	40	425	6,0529	0,21	0,21	99,75	2,81
	60	250	5,5215	1,47	1,47	98,28	2,12
	80	180	5,193	3,62	3,62	94,66	1,61
	100	150	5,0106	1,53	1,53	93,13	1,49
	120	125	4,8283	4,19	4,19	88,94	1,23
	0	0		88,94	88,94	-	-
	Σ			100,02			
3	20	850	6,7452	0,07	0,07	99,90	3,01
	40	425	6,0529	0,28	0,28	99,62	2,67
	60	250	5,5215	1,56	1,56	98,06	2,07
	80	180	5,193	3,47	3,47	94,59	1,61
	100	150	5,0106	1,62	1,62	92,97	1,47
	120	125	4,8283	4,95	4,95	88,02	1,17
	0	0		88,02	88,02	-	-
	Σ			99,97			

Replikasi	d50%	d84%	tg	dvs
1	33,6765	92,4807	2,7461	20,22 μm
2	33,2249	90,5407	2,7251	20,10 μm
3	33,6428	93,4195	2,7768	19,98 μm
$\bar{x} \pm SD$				20,10 ± 0,12

b) Ekstrak Kering Seledri

Replikasi	No mesh	d (µm)	ln d (µm)	berat granul yang tertahan (g)	% bobot	% FKB	Nilai z
1	20	850	6,7452	0,03	0,03	99,83	2,92
	40	425	6,0529	0,17	0,17	99,66	2,71
	60	250	5,5215	3,11	3,11	96,55	1,82
	80	180	5,193	8,43	8,43	88,12	1,18
	100	150	5,0106	3,71	3,71	84,41	1,01
	120	125	4,8283	13,83	13,83	70,58	0,54
	0	0		70,58	70,58	-	-
	Σ			99,86			
2	20	850	6,7452	0,21	0,21	99,71	2,76
	40	425	6,0529	0,06	0,06	99,65	2,70
	60	250	5,5215	2,47	2,47	97,18	1,91
	80	180	5,193	8,62	8,62	88,56	1,20
	100	150	5,0106	7,53	7,53	81,03	0,88
	120	125	4,8283	19,13	19,13	61,90	0,30
	0	0		61,90	61,90	-	-
	Σ			99,92			
3	20	850	6,7452	0,28	0,28	99,59	2,64
	40	425	6,0529	0,07	0,07	99,52	2,59
	60	250	5,5215	3,56	3,56	95,96	1,75
	80	180	5,193	8,47	8,47	87,49	1,15
	100	150	5,0106	6,62	6,62	80,87	0,87
	120	125	4,8283	16,95	16,95	63,92	0,36
	0	0		63,92	63,92	-	-
	Σ			99,87			

Replikasi	d50%	d84%	tg	Dvs
I	69,0133	150,6561	2,1830	50,89 µm
II	68,7172	150,4303	2,1891	50,56 µm
III	68,4703	150,5357	2,1986	50,21 µm
$\bar{x} \pm SD$				50,55 ± 0,34

c) Ekstrak Kering Campuran

Replikasi	No mesh	d (µm)	ln d (µm)	berat granul yang tertahan (g)	% bobot	% FKB	Nilai z
1	20	850	6,7452	0,15	0,15	99,86	2,98
	40	425	6,0529	0,20	0,20	99,66	2,71
	60	250	5,5215	1,36	1,36	98,30	2,12
	80	180	5,193	3,70	3,70	94,60	1,61
	100	150	5,0106	1,80	1,80	92,80	1,46
	120	125	4,8283	4,71	4,71	88,09	1,18
	0	0		88,09	88,09	-	-
	Σ			100,01			
2	20	850	6,7452	0,06	0,06	99,97	3,04
	40	425	6,0529	0,09	0,09	99,88	3,00
	60	250	5,5215	1,26	1,26	98,62	2,20
	80	180	5,193	3,52	3,52	95,10	1,66
	100	150	5,0106	1,66	1,66	93,44	1,51
	120	125	4,8283	4,74	4,74	88,70	1,21
	0	0		88,70	88,70	-	-
	Σ			100,03			
3	20	850	6,7452	0,03	0,03	99,95	3,03
	40	425	6,0529	0,16	0,16	99,79	2,86
	60	250	5,5215	1,19	1,19	98,60	2,20
	80	180	5,193	3,72	3,72	94,88	1,63
	100	150	5,0106	1,75	1,75	93,13	1,49
	120	125	4,8283	4,62	4,62	88,51	1,20
	0	0		88,51	88,51	-	-
	Σ			99,98			

Replikasi	d50%	d84%	tg	dvs
I	32,7859	91,7621	2,7988	19,31 μm
II	33,4349	88,5617	2,7251	20,81 μm
III	33,2581	89,7924	2,6998	20,31 μm
$\bar{x} \pm \text{SD}$				20,14 $\pm$ 0,76

6. Hasil Penentuan Kadar Air

Tanaman	Rep	Berat cawan (g)	Berat ekstrak (g)	Berat cawan+ekstrak konstan (g)	% kadar
Bawang putih	I	42,3152	10,0017	51,9515	3,65
	II	50,0025	10,0093	59,7101	3,01
	III	42,6368	9,9840	52,2714	3,50
	$\bar{x} \pm \text{SD}$				3,39 $\pm$ 0,33
Seledri	I	64,2068	9,9971	73,8394	3,65
	II	53,5402	10,0055	63,2035	3,42
	III	54,4287	9,9986	64,0616	3,66
	$\bar{x} \pm \text{SD}$				3,58 $\pm$ 0,14
Campuran	I	66,5507	10,0032	76,1868	3,67
	II	74,8456	9,9978	84,5145	3,29
	III	50,1505	10,0012	59,8146	3,37
	$\bar{x} \pm \text{SD}$				3,44 $\pm$ 0,20

Contoh Perhitungan:

Ekstrak kering campuran replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat ekstrak} - \text{berat ekstrak konstan}}{\text{berat ekstrak}} \times 100\%$$

$$\begin{aligned} \% \text{ kadar} &= \frac{10,0032 - (76,1868 - 66,5507)}{10,0032} \times 100\% \\ &= 3,67\% \end{aligned}$$

7. Hasil Penentuan Kadar Abu Total

Tanaman	Rep	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	% kadar
Bawang putih	I	33,2144	2,9947	33,2757	2,05
	II	34,7869	2,9990	34,8517	2,16
	III	32,5317	2,9973	32,5975	2,19
	$\bar{x} \pm SD$				$2,13 \pm 0,07$
Seledri	I	35,9255	2,9992	36,0824	5,23
	II	34,8076	3,0053	34,9749	5,57
	III	34,1089	2,9973	34,2705	5,39
	$\bar{x} \pm SD$				$5,45 \pm 0,17$
Campuran	I	34,5335	2,9926	34,5997	2,21
	II	32,5092	3,0010	32,5841	2,49
	III	34,0001	2,9897	34,0846	2,82
	$\bar{x} \pm SD$				$2,51 \pm 0,31$

Contoh Perhitungan:

Ekstrak kering campuran replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abukonstan}}{\text{berat ekstrak}} \times 100\%$$

$$\begin{aligned} \% \text{ kadar} &= \frac{34,5997 - 34,5335}{2,9926} \times 100\% \\ &= 2,21\% \end{aligned}$$

8. Hasil Penetapan Kadar Abu Tidak Larut Asam

Tanaman	Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+HCl konstan (g)	% kadar
Bawang putih	I	34,0844	2,9979	34,1512	34,0853	1,35
	II	34,4072	2,9994	34,4739	34,4079	1,05
	III	34,4746	2,9961	34,5390	34,4754	1,24
	$\bar{x} \pm SD$					1,21 $\pm$ 0,15
Seledri	I	34,7150	2,9995	34,8704	34,7234	5,41
	II	34,3715	2,9977	34,5301	34,3809	5,93
	III	33,9842	2,9963	34,1457	33,9932	5,57
	$\bar{x} \pm SD$					5,64 $\pm$ 0,27
Campuran	I	34,7443	2,9997	34,8982	34,7521	5,07
	II	36,5278	2,9983	36,5927	36,5286	1,23
	III	34,4379	3,0011	34,4963	34,4388	1,54
	$\bar{x} \pm SD$					2,61 $\pm$ 2,13

Contoh Perhitungan:

Ekstrak kering seledri replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abu setelah penambahan HCl}}{\text{berat abu total}} \times 100\%$$

$$\begin{aligned} \% \text{ kadar} &= \frac{34,7234 - 34,7150}{34,8704 - 34,7150} \times 100\% \\ &= 5,41\% \end{aligned}$$

9. Hasil Penetapan Kadar Abu Larut Air

Tanaman	Replikasi	Berat krus (g)	Berat ekstrak (g)	Berat krus+abu konstan (g)	Berat abu+ aquadest (g)	% kadar
Bawang putih	I	33,1572	2,9873	33,2228	33,1738	25,30
	II	34,2863	2,9987	34,3514	34,3025	24,88
	III	34,7627	2,9852	34,8248	34,7787	25,76
	$\bar{x} \pm SD$					25,31 $\pm$ 0,44
Seledri	I	33,8072	3,0012	33,9579	33,8521	29,79
	II	34,6519	2,9983	34,8056	34,6987	30,06
	III	34,9733	2,9997	35,1314	35,0173	27,83
	$\bar{x} \pm SD$					29,23 $\pm$ 1,22
Campuran	I	34,7412	2,9979	34,8187	34,7606	25,03
	II	34,7558	2,9992	34,8208	34,7724	25,54
	III	34,5097	2,9983	34,5748	34,5267	26,11
	$\bar{x} \pm SD$					25,56 $\pm$ 0,54

Contoh Perhitungan:

Ekstrak kering seledri replikasi 1:

$$\% \text{ kadar} = \frac{\text{berat abu setelah penambahan aquadest}}{\text{berat abutotal}} \times 100\%$$

$$\begin{aligned} \% \text{ kadar} &= \frac{33,8521 - 33,8072}{33,9579 - 3,8072} \times 100\% \\ &= 29,79\% \end{aligned}$$

11. Hasil Penetapan Susut Pengeringan

Replikasi	Ekstrak kering bawang putih	Ekstrak kering seledri	Ekstrak kering campuran
I	4,6	4,2	4,2
II	4,2	4,6	4,4
III	4,6	4,0	4,4
$\bar{x} \pm SD$	4,5 $\pm$ 0,23	4,3 $\pm$ 0,31	4,3 $\pm$ 0,12

LAMPIRAN B
HASIL UJI MUTU FISIK GRANUL

Formula Tablet					
Uji mutu fisik	Replikasi				Persyaratan
		Bets I	Bets II	Bets III	
Kadar air (%)	I	3,14	3,58	3,22	3-5% (Parrot, 1971)
	II	4,46	4,09	3,85	
	III	4,27	4,53	4,56	
	$\bar{x} \pm SD$	$3,96 \pm 0,71$	$4,07 \pm 0,48$	$3,88 \pm 0,67$	
Waktu alir (detik)	I	7,38	6,99	7,96	< 10 detik (Siregar dkk,1992)
	II	7,46	7,23	8,14	
	III	7,68	6,96	8,26	
	$\bar{x} \pm SD$	$7,51 \pm 0,16$	$7,06 \pm 0,15$	$8,12 \pm 0,15$	
Sudut diam (°)	I	29,47	28,32	29,58	25-30 = baik (Siregar dkk,1992)
	II	28,50	27,63	27,45	
	III	28,45	26,74	28,10	
	$\bar{x} \pm SD$	$28,81 \pm 0,58$	$27,56 \pm 0,79$	$28,38 \pm 1,09$	
Indeks Kompresibilitas (%)	I	16	16	13	11-15 = baik 16-20 = cukup baik (Siregar dkk,1992)
	II	14	13	14	
	III	14	15	16	
	$\bar{x} \pm SD$	$14,67 \pm 1,15$	$14,67 \pm 1,53$	$14,33 \pm 1,53$	

Keterangan: SD = standar deviasi

Contoh perhitungan sudut diam:

Bets 1:

W persegi panjang = 4,58 gram

W lingkaran = 0,80 gram

Luas persegi panjang = 651 cm²

Luas lingkaran = $\frac{0,80}{4,58} \times 651 = 113,7118 \text{ cm}^2$

$$L = \pi r^2$$

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

$$= \frac{113,7118}{3,14}$$

$$r = 6,0178 \text{ cm}$$

$$\text{tg } \alpha = \frac{n}{r} = \frac{3,4}{6,0178}$$

$$\alpha = 29,47^\circ$$

Contoh perhitungan indeks kompresibilitas:

Bets 1:

Berat gelas = 90,62 g (W₁)

Berat gelas + granul = 150,61 g (W₂)

V₁ = 100 ml

V₂ = 84 ml

$$\text{Bj nyata} = \frac{(W_2 - W_1)}{V_1} = \frac{150,61 - 90,62}{100} = 0,5999$$

$$\text{Bj mampat} = \frac{(W_2 - W_1)}{V_2} = \frac{150,61 - 90,62}{84} = 0,7142$$

$$\% \text{ kompresibilitas} = \left(1 - \frac{B_j \text{ nyata}}{B_j \text{ mampat}} \right) \times 100\% = 16,13\%$$

Keterangan: SD = standar deviasi

Contoh perhitungan sudut diam:

Bets 1:

$$W \text{ persegi panjang} = 4,58 \text{ gram}$$

$$W \text{ lingkaran} = 0,80 \text{ gram}$$

$$\text{Luas persegi panjang} = 651 \text{ cm}^2$$

$$\text{Luas lingkaran} = \frac{0,80}{4,58} \times 651 = 113,7118 \text{ cm}^2$$

$$L = \pi r^2$$

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

$$= \frac{113,7118}{3,14}$$

$$r = 6,0178 \text{ cm}$$

$$\text{tg } \alpha = \frac{n}{r} = \frac{3,4}{6,0178}$$

$$\alpha = 29,47^\circ$$

Contoh perhitungan indeks kompresibilitas:

Bets 1:

$$\text{Berat gelas} = 90,62 \text{ g (W}_1\text{)}$$

$$\text{Berat gelas + granul} = 150,61 \text{ g (W}_2\text{)}$$

$$V_1 = 100 \text{ ml}$$

$$V_2 = 84 \text{ ml}$$

$$B_j \text{ nyata} = \frac{(W_2 - W_1)}{V_1} = \frac{150,61 - 90,62}{100} = 0,5999$$

$$B_j \text{ mampat} = \frac{(W_2 - W_1)}{V_2} = \frac{150,61 - 90,62}{84} = 0,7142$$

$$\% \text{ kompresibilitas} = \left(1 - \frac{B_j \text{ nyata}}{B_j \text{ mampat}} \right) \times 100\% = 16,13\%$$

LAMPIRAN C
HASIL UJI MUTU FISIK TABLET

1. Hasil Uji Keseragaman Bobot

REPLIKASI I

No.	Bets I		Bets II		Bets III	
	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)
1	650,4	0,41	648,3	0,32	641,8	1,17
2	646,3	0,23	644,3	0,29	647,0	0,37
3	645,9	0,29	647,9	0,26	642,5	1,06
4	648,1	0,05	655,3	1,41	645,7	0,57
5	647,2	0,09	643,2	0,47	647,6	0,27
6	653,2	0,84	640,8	0,84	642,6	1,04
7	648,9	0,17	654,1	1,22	648,6	0,12
8	647,0	0,12	645,2	0,16	652,3	0,45
9	651,6	0,59	646,1	0,02	646,8	0,39
10	647,1	0,10	647,2	0,15	653,3	0,60
11	657,8	1,55	643,2	0,47	655,2	0,89
12	644,0	0,58	647,5	0,20	654,3	0,76
13	652,5	0,73	649,1	0,45	646,7	0,41
14	640,1	1,18	644,6	0,25	658,3	1,37
15	647,6	0,03	642,9	0,51	647,7	0,26
16	644,2	0,55	640,4	0,89	654,3	0,76
17	650,6	0,44	642,8	0,53	647,6	0,27
18	642,6	0,79	655,7	1,47	656,4	1,08
19	647,6	0,03	640,9	0,82	646,8	0,39
20	642,7	0,78	644,7	0,23	652,0	0,40
$\bar{x} \pm$ SD	647,77	0,48 $\pm$ 0,41	646,21	0,55 $\pm$ 0,43	649,38	0,63 $\pm$ 0,36

REPLIKASI II

No.	Bets I		Bets II		Bets III	
	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)
1	645,8	0,39	642,5	0,62	653,6	0,29
2	646,1	0,34	645,3	0,19	650,7	0,15
3	653,7	0,83	643,6	0,45	645,2	0,99
4	648,7	0,06	649,7	0,49	658,5	1,04
5	657,4	1,40	644,3	0,34	652,2	0,08
6	642,4	0,91	644,6	0,29	644,3	1,13
7	647,8	0,08	646,1	0,06	649,2	0,38
8	650,7	0,37	648,9	0,37	649,7	0,31
9	645,2	0,48	645,7	0,13	656,7	0,77
10	650,6	0,35	646,9	0,06	654,5	0,43
11	649,3	0,15	650,4	0,60	655,3	0,55
12	647,4	0,14	641,6	0,76	647,4	0,66
13	648,8	0,07	642,9	0,56	658,3	1,01
14	641,7	1,02	656,0	1,47	652,9	0,19
15	657,7	1,45	646,3	0,03	651,5	0,03
16	648,3	$1,54 \times 10^{-3}$	653,9	1,14	651,7	$1,53 \times 10^{-3}$
17	644,1	0,65	643,5	0,47	649,4	0,35
18	644,6	0,57	647,2	0,11	646,3	0,83
19	648,3	$1,54 \times 10^{-3}$	646,8	0,04	656,7	0,77
20	647,6	0,11	644,1	0,37	649,6	0,32
$\bar{x} \pm SD$	648,31	$0,47 \pm 0,45$	646,52	$0,43 \pm 0,37$	651,69	$0,51 \pm 0,36$

REPLIKASI III

No.	Bets I		Bets II		Bets III	
	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)	Bobot tablet (mg)	Penyimpangan (%)
1	643,6	0,89	656,2	1,42	653,5	0,32
2	650,8	0,22	641,2	0,89	658,6	1,11
3	658,1	1,34	647,9	0,14	645,9	0,84
4	647,3	0,32	644,9	0,32	652,1	0,11
5	648,3	0,16	647,2	0,03	651,7	0,05
6	642,5	1,06	643,4	0,55	644,0	1,13
7	646,5	0,44	652,8	0,89	655,6	0,65
8	649,2	0,03	643,2	0,59	649,4	0,31
9	659,0	1,48	649,8	0,43	646,0	0,83
10	647,4	0,30	645,7	0,19	654,7	0,51
11	656,9	1,16	645,0	0,31	645,9	0,84
12	648,3	0,16	643,6	0,52	647,4	0,61
13	647,9	0,23	642,5	0,69	653,6	0,34
14	649,1	0,04	645,2	0,28	646,1	0,81
15	652,7	0,51	651,9	0,76	649,8	0,24
16	646,3	0,47	646,1	0,14	652,9	0,23
17	648,8	0,09	646,6	0,06	648,7	0,41
18	649,9	0,08	651,2	0,65	658,5	1,09
19	650,7	0,20	644,8	0,34	657,7	0,97
20	644,1	0,81	650,7	0,57	655,6	0,65
$\bar{x} \pm SD$	649,37	0,50 $\pm$ 0,46	646,99	0,49 $\pm$ 0,34	651,39	0,60 $\pm$ 0,34

2. Hasil Uji Keseragaman Ukuran Tablet

REPLIKASI I

No.	Bets I		Bets II		Bets III	
	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)
1	0,420	1,310	0,400	1,310	0,415	1,310
2	0,405	1,315	0,400	1,310	0,400	1,310
3	0,405	1,310	0,395	1,310	0,415	1,310
4	0,400	1,310	0,415	1,310	0,415	1,310
5	0,400	1,310	0,395	1,310	0,400	1,310
6	0,400	1,310	0,415	1,305	0,410	1,310
7	0,415	1,305	0,395	1,310	0,415	1,305
8	0,400	1,310	0,400	1,310	0,410	1,305
9	0,400	1,310	0,395	1,310	0,415	1,310
10	0,415	1,310	0,415	1,310	0,400	1,310
11	0,400	1,310	0,405	1,310	0,400	1,310
12	0,405	1,310	0,410	1,305	0,400	1,310
13	0,410	1,310	0,405	1,305	0,400	1,310
14	0,410	1,310	0,400	1,310	0,415	1,310
15	0,400	1,305	0,400	1,310	0,410	1,305
16	0,400	1,310	0,400	1,310	0,410	1,310
17	0,410	1,310	0,395	1,310	0,415	1,310
18	0,400	1,310	0,395	1,310	0,405	1,310
19	0,400	1,305	0,400	1,310	0,400	1,310
20	0,405	1,305	0,400	1,310	0,400	1,310
$\bar{x} \pm SD$	$0,405 \pm 0,01$	$1,309 \pm 0,00$	$0,402 \pm 0,01$	$1,309 \pm 0,00$	$0,408 \pm 0,01$	$1,309 \pm 0,00$

REPLIKASI II

No.	Bets I		Bets II		Bets III	
	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)
1	0,400	1,310	0,395	1,310	0,400	1,310
2	0,400	1,310	0,400	1,305	0,400	1,305
3	0,400	1,310	0,400	1,310	0,410	1,310
4	0,405	1,305	0,400	1,310	0,400	1,310
5	0,405	1,305	0,395	1,310	0,400	1,310
6	0,405	1,310	0,395	1,310	0,415	1,310
7	0,405	1,310	0,405	1,310	0,415	1,310
8	0,415	1,305	0,400	1,310	0,410	1,310
9	0,400	1,305	0,410	1,310	0,405	1,310
10	0,400	1,310	0,410	1,305	0,400	1,310
11	0,395	1,305	0,400	1,310	0,400	1,310
12	0,400	1,310	0,405	1,310	0,415	1,305
13	0,400	1,310	0,395	1,310	0,410	1,305
14	0,405	1,310	0,410	1,310	0,415	1,310
15	0,405	1,310	0,395	1,310	0,405	1,310
16	0,400	1,310	0,400	1,310	0,400	1,310
17	0,410	1,310	0,410	1,310	0,410	1,310
18	0,410	1,310	0,395	1,310	0,400	1,310
19	0,400	1,305	0,395	1,310	0,415	1,310
20	0,405	1,310	0,410	1,310	0,400	1,310
$\bar{x} \pm SD$	0,403 $\pm$ 0,01	1,309 $\pm$ 0,00	0,401 $\pm$ 0,01	1,310 $\pm$ 0,00	0,406 $\pm$ 0,01	1,309 $\pm$ 0,00

REPLIKASI III

No.	Bets I		Bets II		Bets III	
	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)	Tebal (mm)	Diameter (mm)
1	0,410	1,310	0,400	1,310	0,415	1,310
2	0,400	1,310	0,400	1,310	0,405	1,310
3	0,400	1,310	0,410	1,310	0,400	1,310
4	0,410	1,305	0,395	1,310	0,415	1,310
5	0,405	1,310	0,405	1,310	0,400	1,310
6	0,400	1,310	0,410	1,310	0,410	1,305
7	0,415	1,305	0,400	1,305	0,405	1,310
8	0,405	1,310	0,400	1,310	0,415	1,310
9	0,400	1,310	0,400	1,310	0,415	1,305
10	0,400	1,310	0,400	1,310	0,410	1,310
11	0,400	1,310	0,415	1,310	0,400	1,310
12	0,415	1,305	0,405	1,310	0,410	1,310
13	0,405	1,310	0,395	1,310	0,415	1,310
14	0,395	1,310	0,410	1,310	0,415	1,310
15	0,400	1,310	0,415	1,310	0,415	1,310
16	0,415	1,305	0,400	1,310	0,410	1,310
17	0,410	1,310	0,410	1,310	0,400	1,310
18	0,400	1,305	0,410	1,310	0,415	1,310
19	0,405	1,310	0,405	1,310	0,400	1,310
20	0,395	1,310	0,415	1,305	0,400	1,310
$\bar{x} \pm SD$	$0,404 \pm 0,01$	$1,309 \pm 0,00$	$0,405 \pm 0,01$	$1,31 \pm 0,00$	$0,409 \pm 0,01$	$1,31 \pm 0,00$

3. Hasil Uji Kekerasan Tablet

REPLIKASI I

No.	Kekerasan tablet (Kp)		
	Bets I	Bets II	Bets III
1	6,2	4,2	6,2
2	5,4	5,7	6,6
3	5,9	4,9	5,8
4	6,1	6,6	6,8
5	6,5	4,9	6,7
6	5,1	5,3	4,1
7	5,6	4,5	6,7
8	6,7	6,4	5,9
9	6,9	6,8	5,7
10	6,0	6,5	5,9
$\bar{x} \pm SD$	$6,04 \pm 0,57$	$5,58 \pm 0,95$	$6,04 \pm 0,80$

REPLIKASI II

No.	Kekerasan tablet (Kp)		
	Bets I	Bets II	Bets III
1	5,4	6,1	5,8
2	6,1	5,9	5,9
3	6,3	4,7	6,1
4	5,8	6,9	6,9
5	6,4	7,2	6,4
6	6,1	6,4	6,5
7	6,4	6,4	5,9
8	5,3	6,8	5,2
9	6,4	4,6	6,0
10	5,8	6,3	5,1
$\bar{x} \pm SD$	$6,0 \pm 0,41$	$6,13 \pm 0,87$	$5,98 \pm 0,55$

REPLIKASI III

No.	Kekerasan tablet (Kp)		
	Bets I	Bets II	Bets III
1	5,6	6,2	6,4
2	6,8	6,8	5,5
3	5,9	6,7	6,0
4	6,0	6,1	6,7
5	5,4	5,8	6,4
6	6,7	5,0	5,4
7	6,5	6,4	6,4
8	6,1	6,3	6,2
9	5,3	6,6	6,1
10	6,2	6,4	6,9
$\bar{x}$	6,05	6,23	6,2
SD	0,52	0,52	0,48

4. Hasil Uji Kerapuhan Tablet

Bets	Replikasi	Wo (g)	W (g)	Kerapuhan (%)	Rata-rata	SD
I	I	13,0062	12,9411	0,50	0,51	0,01
	II	12,9978	12,9299	0,52		
	III	12,9952	12,9283	0,51		
II	I	12,9888	12,9155	0,56	0,56	0,11
	II	13,0091	12,9501	0,45		
	III	12,9443	12,8575	0,67		
III	I	13,04	12,9689	0,54	0,50	0,07
	II	13,1588	13,1034	0,42		
	III	12,9635	12,8935	0,54		

Contoh perhitungan:

Bets 1:

Berat gelas = 90,62 g (W_1)

Berat gelas + granul = 150,61 g (W_2)

$$\% \text{ kerapuhan} = \frac{(W_0 - W)}{W_0} \times 100\%$$

$$= \frac{(13,0062 - 12,9411)}{13,0062} \times 100\%$$

$$= 0,50\%$$

5. Hasil Uji Waktu Hancur Tablet

Bets	Replikasi	Waktu hancur tablet (menit)	Rata-rata	SD
I	I	12	11,33	0,58
	II	11		
	III	11		
II	I	11	10,67	0,58
	II	10		
	III	11		
III	I	13	11,67	1,15
	II	11		
	III	11		

LAMPIRAN D

HASIL UJI STATISTIK

1. Hasil Uji Statistik Kekerasan Tablet Campuran Ekstrak Herba (*Apium Graviolens Linn.*) dengan Ekstrak Bawang Putih (*Allium Sativum L.*)

Homogeneous Subsets

Kekerasan

Tukey HSD^a

bets	N	Subset for alpha = 0.05	
		1	
bets 2	3		5.9800
bets 1	3		6.0300
bets 3	3		6.0733
Sig.			.857

Means for groups in homogeneous subsets are displayed.

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

ANOVA

Kekerasan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.013	2	.007	.144	.869
Within Groups	.272	6	.045		
Total	.285	8			

Karena $F_{hitung} = 0,144 < F_{tabel\ 0,05(2,6)} = 5,14$; maka H_0 diterima dan tidak ada perbedaan yang bermakna antar bets.

Post Hock Test

Multiple Comparisons

Kekerasan
Tukey HSD

(I) bets	(J) bets	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
bets 1	bets 2	.05000	.17393	.956	-.4837	.5837
	bets 3	-.04333	.17393	.967	-.5770	.4903
bets 2	bets 1	-.05000	.17393	.956	-.5837	.4837
	bets 3	-.09333	.17393	.857	-.6270	.4403
bets 3	bets 1	.04333	.17393	.967	-.4903	.5770
	bets 2	.09333	.17393	.857	-.4403	.6270

2. Hasil Uji Statistik Kerapuhan Tablet Campuran Ekstrak Herba
(*Apium Graviolens Linn.*) dengan Ekstrak Bawang Putih (*Allium
Sativum L.*)

Homogeneous Subsets

Kerapuhan

Tukey HSD^a

bets	N	Subset for alpha = 0.05	
		1	
bets 3	3	.5000	
bets 1	3	.5100	
bets 2	3	.5600	
Sig.		.617	

Means for groups in homogeneous subsets are displayed.

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

ANOVA

Kerapuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.006	2	.003	.547	.605
Within Groups	.034	6	.006		
Total	.040	8			

Karena $F_{hitung} = 0,547 < F_{tabel\ 0,05(2,6)} = 5,14$; maka H_0 diterima dan tidak ada perbedaan yang bermakna antar bets.

Multiple Comparisons

Kerapuhan

Tukey HSD

(I) bets	(J) bets	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
bets 1	bets 2	-.05000	.06146	.709	-.2386	.1386
	bets 3	.01000	.06146	.986	-.1786	.1986
bets 2	bets 1	.05000	.06146	.709	-.1386	.2386
	bets 3	.06000	.06146	.617	-.1286	.2486
bets 3	bets 1	-.01000	.06146	.986	-.1986	.1786
	bets 2	-.06000	.06146	.617	-.2486	.1286

3. Hasil Uji Statistik Waktu Hancur Tablet Campuran Ekstrak Herba (*Apium Graviolens* Linn.) dengan Ekstrak Bawang Putih (*Allium Sativum* L.)

Homogeneous Subsets

Waktu Hancur

Tukey HSD^a

bets	N	Subset for alpha = 0.05	
		1	
bets 2	3		10.6667
bets 1	3		11.3333
bets 3	3		11.6667
Sig.			.355

Means for groups in homogeneous subsets are displayed.

ANOVA

Waktu Hancur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.556	2	.778	1.167	.373
Within Groups	4.000	6	.667		
Total	5.556	8			

Karena $F_{hitung} = 1,167 < F_{tabel_{0,05(2,6)}} = 5,14$; maka H_0 diterima dan tidak ada perbedaan yang bermakna antar bets.

Post Hock Test

Multiple Comparisons

Waktu Hancur
Tukey HSD

(I) bets	(J) bets	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
bets 1	bets 2	.66667	.66667	.603	-1.3788	2.7122
	bets 3	-.33333	.66667	.874	-2.3788	1.7122
bets 2	bets 1	-.66667	.66667	.603	-2.7122	1.3788
	bets 3	-1.00000	.66667	.355	-3.0455	1.0455
bets 3	bets 1	.33333	.66667	.874	-1.7122	2.3788
	bets 2	1.00000	.66667	.355	-1.0455	3.0455

LAMPIRAN E
TABEL DISTRIBUSI F

$\alpha = 0,05$												
df_2	df_1											
	1	2	3	4	5	6	7	8	10	12	24	∞
1	161,4	199,5	215,7	224,6	230,2	234,0	236,8	238,9	241,9	243,9	249,0	254,3
2	18,5	19,0	19,2	19,2	19,3	19,3	19,4	19,4	19,4	19,4	19,5	19,5
3	10,13	9,55	9,28	9,12	9,01	8,94	8,89	8,85	8,79	8,74	8,64	8,53
4	7,71	6,94	6,59	6,39	6,26	6,16	6,09	6,04	5,96	5,91	5,77	5,63
5	6,61	5,79	5,41	5,19	5,05	4,95	4,88	4,82	4,74	4,68	4,53	4,36
6	5,99	5,14	4,76	4,53	4,39	4,28	4,21	4,15	4,06	4,00	3,84	3,67
7	5,59	4,74	4,35	4,12	3,97	3,87	3,79	3,73	3,64	3,57	3,41	3,23
8	5,32	4,46	4,07	3,84	3,69	3,58	3,50	3,44	3,35	3,28	3,12	2,93
9	5,12	4,26	3,86	3,63	3,48	3,37	3,29	3,23	3,14	3,07	2,90	2,71
10	4,96	4,10	3,71	3,48	3,33	3,22	3,14	3,07	2,98	2,91	2,74	2,54
11	4,84	3,98	3,59	3,36	3,20	3,09	3,01	2,95	2,85	2,79	2,61	2,40
12	4,75	3,89	3,49	3,26	3,11	3,00	2,91	2,85	2,75	2,69	2,51	2,30
13	4,67	3,81	3,41	3,18	3,03	2,92	2,83	2,77	2,67	2,60	2,42	2,21
14	4,60	3,74	3,34	3,11	2,96	2,85	2,76	2,70	2,60	2,53	2,35	2,13
16	4,49	3,63	3,24	3,01	2,85	2,74	2,66	2,59	2,49	2,42	2,24	2,01
18	4,41	3,55	3,16	2,93	2,77	2,66	2,58	2,51	2,41	2,34	2,15	1,92
20	4,35	3,49	3,10	2,87	2,71	2,60	2,51	2,45	2,35	2,28	2,08	1,84
22	4,30	3,44	3,05	2,82	2,66	2,55	2,46	2,40	2,30	2,23	2,03	1,78
24	4,26	3,40	3,01	2,78	2,62	2,51	2,42	2,36	2,25	2,18	1,98	1,73
26	4,23	3,37	2,98	2,74	2,59	2,47	2,39	2,32	2,22	2,15	1,95	1,69
28	4,20	3,34	2,95	2,71	2,56	2,45	2,36	2,29	2,19	2,12	1,91	1,65
30	4,17	3,32	2,92	2,69	2,53	2,42	2,33	2,27	2,16	2,09	1,89	1,62
40	4,08	3,23	2,84	2,61	2,45	2,34	2,25	2,18	2,08	2,00	1,79	1,51
60	4,00	3,15	2,76	2,53	2,37	2,25	2,17	2,10	1,99	1,92	1,70	1,39
120	3,92	3,07	2,68	2,45	2,29	2,18	2,09	2,02	1,91	1,83	1,61	1,25
∞	3,84	3,00	2,60	2,37	2,21	2,10	2,01	1,94	1,83	1,75	1,52	1,00

LAMPIRAN F
SERTIFIKAT ANALISIS EKSTRAK KERING BAWANG PUTIH



QA Dept.

Certificate of Analysis

Ref. No. 0275/Co/NA/12

Product Name : Garlic PE
 Product Code : 5082A
 Batch/Lot No. : P5082A612401

Manufacturing date : December 08th 2011
 Best used before : December 08th 2012
 Date of issued : February 17th 2012

Test Descriptions	Results
Sensory Evaluation	
- Color (Visual)	White
- Appearance (Visual)	Homogeny, fine powder
- Odor and Taste (Smell)	Characteristic odor and taste of Garlic
Physicochemical	
- Solubility (1 % soluble in water)	Soluble in water
- Particle Size (Sieve thru mesh #100)	99,21 %
- Lost On Drying (IR/105 °C)	4,86 %
- Tapped Density (60 ml / 500-750 X)	0,508 g/ml
- pH at 25 °C (1.0 % solution)	6,10
Toxicological	
- Aerobic Plate Count (Ph)	3,84.10 ³ cfu/g
- Yeast and Mold (Ph)	2,47.10 ⁴ cfu/g
- E. Coli (Ph)	Negative
- Salmonella sp. (Ph)	Negative

Dewi Alletasari H – QA Dept. :

NATURA LABORATORIA PRIMA pt.

Office

Factory & Extraction Center

e-mail

Website

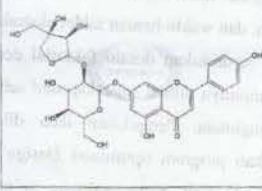
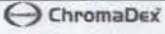
: Jl. Suryopranoto, Kompleks Harmoni Plaza Blok JS-J4, Jakarta 10130 - Indonesia.
 Ph. +62-21-6318948 (Marketing), Fax. +62-21-6318948
 : Jl. Stadion No. 26, Pandaan, Pasuruan 67166, East Java - Indonesia.
 Ph. +62-343-633432, 633433 Fax. +62-343-633435
 : info@natura-lab.com
 : http://www.natura-lab.com

LAMPIRAN G

SERTIFIKAT ANALISIS EKSTRAK KERING HERBA SELEDRI

 NATURA FOOD & NUTRACEUTICAL COMPANY	
QA Dept.	Certificate of Analysis Ref. No.0378/CoA/QA/11/12
Product Name	: Seledri PE
Product Code	: 5046A
Batch/Lot No.	: P5046A620401
Manufacturing date	: February 24 th 2012
Best used before	: February 24 th 2013
Date of issued	: March 07 th 2012
Test Descriptions Sensory Evaluation - Color (Visual) - Appearance (Visual) - Odor and Taste (Smell)	Results Crème Homogeny, fine powder Characteristic odor and taste of Celadry
Physicochemical - Solubility (0,1 % soluble in water) - Particle Size (Sieve thru mesh #100) - Lost On Drying (IR/105 °C) - Tapped Density (50 ml / 500-750 X) - pH at 25 °C (1.0 % solution)	Soluble in water 99,12 % 2,32 % 0,730 g/ml 5,64
Toxicological - Aerobic Plate Count (Ph) - Yeast and Mold (Ph) - E. Coli (Ph) - Salmonella sp. (Ph)	2,66.10 ⁴ cfu/g 1,14.10 ⁴ cfu/g Negative Negative
Dewi Aletasari H – QA Dept. : 	
NATURA LABORATORIA PRIMA pt.	
Office Factory & Extraction Center e-mail Website	: J. Suryopranoto, Kompleks Hemmeri Plaza Blok J3-J4, Jakarta 10130 - Indonesia. Ph. +62-21-6316949 (runding), Fax. +62-21-6316948 : Jl. Stadion No. 20, Pandean, Pasuruan 67156, East Java - Indonesia. Ph. +62-343-633432, 633433 Fax. +62-343-633436 : info@natura-lab.com : http://www.natura-lab.com

LAMPIRAN H
SERTIFIKAT ANALISIS APIIN

ChromaDex™		setting THE standard																		
Certificate of Analysis																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="background-color: #f2f2f2;">PRODUCT</td><td>Apin</td></tr> <tr><td style="background-color: #f2f2f2;">PART NUMBER</td><td>00001931</td></tr> <tr><td style="background-color: #f2f2f2;">STANDARD TYPE</td><td>Reagent Grade (RG)</td></tr> <tr><td style="background-color: #f2f2f2;">LOT NUMBER</td><td>00001931-101</td></tr> <tr><td style="background-color: #f2f2f2;">REPORT NUMBER</td><td>CDXA-RSS-788-00</td></tr> <tr><td style="background-color: #f2f2f2;">CDXA NUMBER</td><td>CDXA-06-0348</td></tr> <tr><td style="background-color: #f2f2f2;">DATE OF SAMPLE</td><td>03/21/2006</td></tr> <tr><td style="background-color: #f2f2f2;">DATE OF RE-EVALUATION</td><td>11/10/2010</td></tr> <tr><td style="background-color: #f2f2f2;">DATE OF REPORT</td><td>06/09/2011</td></tr> </table>	PRODUCT	Apin	PART NUMBER	00001931	STANDARD TYPE	Reagent Grade (RG)	LOT NUMBER	00001931-101	REPORT NUMBER	CDXA-RSS-788-00	CDXA NUMBER	CDXA-06-0348	DATE OF SAMPLE	03/21/2006	DATE OF RE-EVALUATION	11/10/2010	DATE OF REPORT	06/09/2011	Structure 	
PRODUCT	Apin																			
PART NUMBER	00001931																			
STANDARD TYPE	Reagent Grade (RG)																			
LOT NUMBER	00001931-101																			
REPORT NUMBER	CDXA-RSS-788-00																			
CDXA NUMBER	CDXA-06-0348																			
DATE OF SAMPLE	03/21/2006																			
DATE OF RE-EVALUATION	11/10/2010																			
DATE OF REPORT	06/09/2011																			
<table style="width: 100%;"> <tr><td style="width: 30%;">NAME</td><td>Apin</td></tr> <tr><td>OTHER NAME</td><td>7-[(2-O-D-Apio-β-D-furanosyl-(β-D-glucopyranosyl)oxy]-5-hydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one; Apigenin-7-(2-O-apiosylglucoside)</td></tr> <tr><td>CHEMICAL FORMULA</td><td>C₂₈H₃₂O₁₄</td></tr> <tr><td>MOLECULAR WEIGHT (MW)</td><td>584.49</td></tr> <tr><td>PUBLISHED MELTING POINT</td><td>236-237 °C</td></tr> <tr><td>CAS NUMBER</td><td>[26544-34-3]</td></tr> <tr><td>EINECS</td><td>247-780-0</td></tr> <tr><td>CHEMICAL FAMILY</td><td>Flavonoids</td></tr> <tr><td>RTECS</td><td>NA</td></tr> </table>			NAME	Apin	OTHER NAME	7-[(2-O-D-Apio-β-D-furanosyl-(β-D-glucopyranosyl)oxy]-5-hydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one; Apigenin-7-(2-O-apiosylglucoside)	CHEMICAL FORMULA	C ₂₈ H ₃₂ O ₁₄	MOLECULAR WEIGHT (MW)	584.49	PUBLISHED MELTING POINT	236-237 °C	CAS NUMBER	[26544-34-3]	EINECS	247-780-0	CHEMICAL FAMILY	Flavonoids	RTECS	NA
NAME	Apin																			
OTHER NAME	7-[(2-O-D-Apio-β-D-furanosyl-(β-D-glucopyranosyl)oxy]-5-hydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one; Apigenin-7-(2-O-apiosylglucoside)																			
CHEMICAL FORMULA	C ₂₈ H ₃₂ O ₁₄																			
MOLECULAR WEIGHT (MW)	584.49																			
PUBLISHED MELTING POINT	236-237 °C																			
CAS NUMBER	[26544-34-3]																			
EINECS	247-780-0																			
CHEMICAL FAMILY	Flavonoids																			
RTECS	NA																			
STORAGE CONDITIONS <table style="width: 100%;"> <tr><td style="width: 30%;">STORAGE</td><td>Room Temperature in a dry place.</td></tr> <tr><td>EXPIRATION DATE</td><td>11/2015 under the above conditions.</td></tr> </table>			STORAGE	Room Temperature in a dry place.	EXPIRATION DATE	11/2015 under the above conditions.														
STORAGE	Room Temperature in a dry place.																			
EXPIRATION DATE	11/2015 under the above conditions.																			
Note – Reagent Grade (RG) chemicals are not guaranteed as <u>quantitative</u> standards. This product line has been developed for research and qualitative purposes only.																				
Sylesh Venkataraman, Ph.D		Sylesh Venkataraman, Ph.D. Director, Research & Development ChromaDex, Inc. 10000 W. 16th Ave., Suite 100 Denver, CO 80202																		
																				
Tel: 949. 419. 0288 www.chromadex.com Fax: 949. 419. 0294																				

LAMPIRAN I
SERTIFIKAT ANALISIS KALSIUM FOSFAT DIBASIK

 Budenheim CH*P G. Stra. 1127 1148 D-55253 Budenheim Germany PT. MARDIA TITA RUKAN PURI BHAGA III BHKA MS 100 D.D.C.D. Kel. KEMBANGAN SELATAN JAKARTA BARAT 11810 INDONESIA	Certificate of Analysis Date: 20.05.2011 Purchase order date: 108.03.11 - 2 / 04.03.2011 Delivery item/date: 7199806 000010 / 20.05.2011 Order item/date: 3185167 000100 07.03.2011 Contact: CGC: Mr. Thiel Tel. - 477
---	---

DI-CALFOS P Product-No.: C 92-01 Dicalcium phosphate 2-hydrate Powder, USP, FCC, Ph.Eur.	E 341 Dicalcium phosphate for use in foodstuff
---	---

Material-No.: 00000692	Batch-No.: B38657A	Quantity of batch: 20.000,00 KG	Production date: (D.M.Y) 12.04.2011	Best before: (D.M.Y) 11.04.2014
------------------------	--------------------	---------------------------------	-------------------------------------	---------------------------------

Characteristic	Unit	Value	Lower Limit	Upper Limit	Method
Assay (FCC)	%	100,4	98,0	105,0	CA20
Assay (Ph.Eur., USP)	%	99,6	98,0	105,0	PHARM
Loss on Ignition	%	25,4	24,5	26,5	GV1
Loss on Drying (200 Deg.C, 3h)	%		19,5	22,0	TV1
pH (10%)		7,4	7,0	8,0	PH-POT
Arsenic	ppm			1	AS10
Lead	ppm	0,18		0,35	ZEE-AAS
Cadmium	ppm			1	OES-AAS
Iron	ppm			400	OES-AAS
Mercury	ppm			1	HG1
Heavy Metals (as Pb)	ppm			30	USP
Barium Test	%			0,25	OES
Chloride	%			50	CL10
Fluoride	ppm			0,16	F10
Sulfate	%			0,16	SO10
Carbonate-Test				passes Test	C10
Identification (Tests)				passes Test	PHTEST
HCl-insoluble substances	%			0,05	UR3
> 0,045 mm (U.S.S. 325)	%	0,2		5,0	S11

The results of analysis were obtained using the methods listed above. If results are not listed, the conformity to specification is assured by periodical testing.

We confirm that none of the solvents (Organic volatile impurities OVI) listed in the supplement to the USP are used in the manufacture of a.m. product.

We confirm that a.m. product complies with the ICH Q3C guideline for residual solvents.

Chemische Fabrik Budenheim AG, Rheinstraße 27 - 55257 Budenheim - Germany - Telefon ++49 - 63 99 99 0 - Telefax ++49 - 63 99 89 264 Postbank Frankfurt am Main BLZ 250 100 00 - BIC-Nummer FBK33333 IBAN-Nummer DE 24 550 100 000 000 000 000 000 Konto-Nummer 24 550 100 000 000 000 000 000	Commerzbank AG, Mainz BLZ 550 400 00 - BIC-Nummer COBADE3333 IBAN-Nummer DE 11 550 400 000 000 000 000 000 Konto-Nummer 11 550 400 000 000 000 000 000	Dresdner Bank AG, Mainz BLZ 530 800 00 - BIC-Nummer DRESDE3333 IBAN-Nummer DE 24 530 800 000 000 000 000 000 Konto-Nummer 24 530 800 000 000 000 000 000	LfA - LfA Nummer DE 144 1 Steuer-Nummer 24 200 02 Amtsgeschäft Mainz HR A 0451 info@budenheim-efb.com www.budenheim-efb.com
---	---	---	---

LAMPIRAN J
PERHITUNGAN KONVERSI DOSIS

1. Perhitungan dosis ekstrak bawang putih

Perbandingan ekstrak bawang putih dengan pengisi = 5 : 1

$$\begin{aligned}\text{Dosis ekstrak bawang putih} &= \frac{5}{6} \times 360 \text{ mg} \\ &= 300 \text{ mg}\end{aligned}$$

Bobot ekstrak kering bawang putih 360 mg $\propto$ 300 mg ekstrak bawang putih.

2. Perhitungan dosis ekstrak seledri

Perbandingan ekstrak seledri dengan pengisi = 1 : 1

$$\begin{aligned}\text{Dosis ekstrak seledri} &= \frac{1}{2} \times 300 \text{ mg} \\ &= 150 \text{ mg}\end{aligned}$$

Bobot ekstrak kering seledri 300 mg $\propto$ 150 mg ekstrak seledri