

**LAMPIRAN A**  
**HASIL UJI STANDARISASI**

Hasil Perhitungan Penetapan Susut Pengeringan Simplisia

Replikasi	Hasil Susut Pengeringan
1	9,6
2	9,6
3	9,6
Rata- rata	9,6

Hasil Perhitungan Penetapan Susut Pengeringan Ekstrak Kering

Replikasi	Hasil Susut Pengeringan
1	7,4
2	7,4
3	7,4
Rata- rata	7,4

Hasil Perhitungan Penetapan Kadar Abu Total Simplisia

No	W (krus kosong) (gram)	W (Bahan) (gram)	W (krus+ abu) (gram)	% Kadar abu	Rata-Rata (%)
1	21,0625	2,0073	21,2282	8,2548	
2	21,1545	2,0047	21,3224	8,3573	8,28
3	21,0875	2,0092	21,2524	8,2072	

$$\begin{aligned}
 1. \text{ Kadar abu} &= \frac{(\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong}}{\text{Berat ekstrak}} \times 100\% \\
 &= \frac{21,2282 - 21,0625}{2,0073} \times 100\% \\
 &= 8,2548\%
 \end{aligned}$$

$$\begin{aligned}
 2. \text{ Kadar abu} &= \frac{(\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong}}{\text{Berat ekstrak}} \times 100\% \\
 &= \frac{21,3224 - 21,1545}{2,0047} \times 100 \% \\
 &= 8,3753 \%
 \end{aligned}$$

$$\begin{aligned}
 3. \text{ Kadar abu} &= \frac{(\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong}}{\text{Berat ekstrak}} \times 100\% \\
 &= \frac{21,2524 - 21,0875}{2.0092} \times 100 \% \\
 &= 8,2072 \%
 \end{aligned}$$

Hasil Perhitungan Penetapan Kadar Abu Total Ekstrak

No	W (krus kosong) (gram)	W (Bahan) (gram)	W (krus+ abu) (gram)	% Kadar abu	Rata-Rata (%)
1	21,1024	2,0098	21,3026	9,9612	
2	21,0476	2,0087	21,2502	10,0861	10,3007
3	21,1645	2,0074	21,3824	10,8548	

$$\begin{aligned}
 1. \text{ Kadar abu} &= \frac{(\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong}}{\text{Berat ekstrak}} \times 100\% \\
 &= \frac{21,3026 - 21,1024}{2,0098} \times 100 \% \\
 &= 9,9612\%.
 \end{aligned}$$

$$\begin{aligned}
 2. \text{ Kadar abu} &= \frac{(\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong}}{\text{Berat ekstrak}} \times 100\% \\
 &= \frac{21,2502 - 21,0476}{2,0087} \times 100\% \\
 &= 10,0861 \%.
 \end{aligned}$$

$$\begin{aligned}
 3. \text{ Kadar abu} &= (\text{berat krus} + \text{ekstrak}) - \text{berat krus kosong} \times 100\% \\
 &= \frac{21,3824 - 21,1645}{2,0074} \times 100\% \\
 &= 10,8548 \%.
 \end{aligned}$$

#### Hasil Perhitungan Randemen Ekstrak

$$\begin{aligned}
 \text{Randemen ekstrak} &= \frac{\text{berat ekstrak kental}}{\text{berat serbuk}} \times 100\% \\
 &= \frac{587,23}{5000} \times 100\% \\
 &= 11,74 \%.
 \end{aligned}$$

#### Hasil Perhitungan Kadar Sari Larut Etanol Simplisia

No	Berat cawan + serbuk setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	Kadar sari larut etanol (%)	Rata-rata (%)
1	112,1376	111,7447	5,0020	7,854	
2	100,5841	100,1658	5,0015	8,363	7,97
3	101,9540	101,5690	5,0014	7,698	

#### 1. Kadar sari larut etanol

$$\begin{aligned}
 &= \frac{(\text{berat cawan} + \text{serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100\% \\
 &= \frac{112,1376 - 111,7447}{5,0020} \times 100\% \\
 &= 7,854 \%.
 \end{aligned}$$

#### 2. Kadar sari larut etanol

$$= \frac{(\text{berat cawan} + \text{serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100\%$$

$$= \frac{100,5841 - 100,1658}{5,0015} \times 100 \%$$

$$= 8,363 \%$$

3. Kadar sari larut etanol

$$= \frac{(\text{berat cawan} + \text{serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100 \%$$

$$= \frac{101,9540 - 101,5690}{5,0014} \times 100 \%$$

$$= 7,698 \%$$

Hasil Perhitungan Kadar Sari Larut Air Simplisia

No	Berat cawan + serbuk			Kadar sari larut	
	setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	sari larut air (%)	Rata-rata (%)
1	61,8367	61,2286	5,0027	12,1554	
2	63,1146	62,5570	5,0019	11,1477	11,64 %
3	61,7951	61,2134	5,0020	11,6293	

Hasil Perhitungan Kadar Sari Larut Etanol Ekstrak

No	Berat cawan + serbuk			Kadar sari larut	
	setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	etanol (%)	Rata-rata (%)
1	61,7395	61,2522	5,0008	9,7444	
2	63,0462	62,5981	5,0012	8,9598	9,0974
3	42,6714	42,2164	5,0014	9,0974	

1. Kadar sari larut etanol

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100 \%$$

$$= \frac{61,7395 - 61,2522}{5,0008} \times 100 \%$$

$$= 9,7444 \%$$

2. Kadar sari larut etanol

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100 \%$$

$$= \frac{63,0462 - 62,5981}{5,0012} \times 100 \%$$

$$= 8,9598 \%$$

3. Kadar sari larut etanol

$$= \frac{(\text{berat cawan + serbuk}) - \text{berat cawan kosong}}{\text{Berat serbuk}} \times 100 \%$$

$$= \frac{42,6714 - 42,2164}{5,0014} \times 100 \%$$

$$= 9,0974 \%$$

Hasil Perhitungan Kadar Sari Larut Air Ekstrak

No	Berat cawan + serbuk setelah di uapkan (gram)	Berat cawan kosong (gram)	Berat serbuk (gram)	Kadar sari larut air (%)	Rata-rata (%)
1	61,8702	61,2524	5,0012	12,3503	
2	63,1602	62,5896	5,0011	11,4095	11,6988 %
3	42,7835	42,2164	5,0024	11,3365	

Hasil Perhitungan harga Rf pada pemeriksaan secara KLT dengan pelarut benzen : metanol ( 8:2) yang diamati dengan sinar UV pada  $\lambda$  366 nm.

No	Warna	Rf
1	Ungu	0,49
2	Ungu	0,48
3	Ungu	0,48
4	Ungu	0,48
5	Ungu	0,48
6	Ungu	0,48
7	Ungu	0,48
8	Ungu	0,48
9	Ungu	0,48
10	Ungu	0,49

$$Rf = \frac{\text{jarak yang ditempuh solut}}{\text{jarak yang ditempuh solven}}$$

1. Rf Noda A =  $\frac{3,9}{8} = 0,49$

2. Rf Noda A =  $\frac{3,8}{8} = 0,48$

3. Rf Noda A =  $\frac{3,8}{8} = 0,48$

4. Rf Noda A =  $\frac{3,8}{8} = 0,48$

5. Rf Noda A =  $\frac{3,8}{8} = 0,48$

6. Rf Noda A =  $\frac{3,8}{8} = 0,48$

7. Rf Noda A =  $\frac{3,8}{8} = 0,48$

8. Rf Noda A =  $\frac{3,8}{8} = 0,48$

9. Rf Noda A =  $\frac{3,8}{8} = 0,4810$ .

10. Rf Noda A =  $\frac{3,9}{8} = 0,49$

### ***Isolasi Senyawa Karantin***

Ditimbang sejumlah 150 gram serbuk buah pare dan dicampur dengan pelarut petroleum eter secukupnya hingga rata dan cukup basah untuk menghilangkan lemaknya, selanjutnya massa tersebut dipindahkan ke dalam perkolator. Etanol 96% dituang lagi hingga cairan penyari berada 2-3 cm di atas massa serbuk. Selanjutnya bagian atas perkolator ditutup dengan cairan penyari yang berada di dalam perkolator didiamkan selama 24 jam. Setelah itu, kran perkolator ditutup. Perkolat ditampung dengan kecepatan sekitar 1 ml/menit dan secara bertahap ditambahkan etanol 96% secukupnya dengan kecepatan sama hingga perkolat yang ditampung sudah tidak berwarna pekat. Ekstrak cair yang diperoleh selanjutnya dikeringkan dengan menggunakan *vacuum evaporator* sampai diperoleh ekstrak kental. Ekstrak kental dibasakan dengan larutan KOH hingga diperoleh PH=10. Ekstrak kental tersebut didiamkan selama dua hari, diencerkan dengan aquades, diekstraksi kembali menggunakan eter.

Fase eter ditampung dan dicuci berturut-turut dengan aquadest, HCl 5%, dilanjutkan dengan aquaest lagi. Jika masih terdapat sisa aquadest dalam fase eter ditambahkan natrium sulfat anhidrat, kemudian diuapkan hingga kering. Residu direkristalisasi dengan menggunakan etanol 96%. Kristal karantin yang diperoleh dengan menetapkan harga  $R_f$ , indeks bias, dan titik lebur ( Darsono, FL., 2006).

**LAMPIRAN B**  
**HASIL UJI KESERAGAMAN BOBOT TABLET EKSTRAK DAUN**  
**PARE**

Hasil Uji Keseragaman Bobot Tablet Formula I

No	Replikasi I Bobot Tablet ( mg)	Replikasi II Bobot Tablet ( mg)	Replikasi III Bobot Tablet ( mg)
1	651,8	656,2	651,7
2	666,1	660,4	662,2
3	651,4	653,7	651,9
4	663,7	654,9	670,3
5	666,5	650,5	652,7
6	650,3	649,8	670,1
7	653,4	650,1	651,6
8	661,2	662,8	660,4
9	647,8	664,3	652,5
10	653,2	657,2	651,1
$\bar{x}$	7,06	655,99	657,45
SD	656,54	5,23	7,76



Hasil Uji Keseragaman Bobot Tablet Formula II

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet ( mg)	Bobot Tablet (mg)	Bobot Tablet (mg)
1	654,5	654,4	657,8
2	659,1	650,7	655,5
3	641,9	657,5	661,0
4	657,4	649,3	656,8
5	674,6	661,2	650,4
6	669,1	650,6	661,0
7	653,7	648,3	653,9
8	657,4	653,1	650,7
9	645,2	660,8	661,2
10	650,8	663,1	650,4
$\bar{x}$	656,37	654,9	655,87
SD	9,88	5,41	4,42

Hasil Uji Keseragaman Bobot Tablet Formula III.

No	Replikasi I	Replikasi II	Replikasi III
	Bobot Tablet ( mg)	Bobot Tablet (mg)	Bobot Tablet (mg)
1	651,2	653,1	661,2
2	650,6	662,0	650,9
3	660,7	666,4	654,7
4	650,2	658,3	660,1
5	649,5	648,2	650,2
6	661,3	650,6	651,5
7	653,9	665,2	653,2
8	665,1	649,0	652,8
9	654,4	659,7	655,1
10	655,8	655,8	650,7
$\bar{x}$	655,27	656,83	654,04
SD	5,40	6,57	3,86

Hasil Uji Keseragaman Bobot Tablet Formula IV.

No	Replikasi I Bobot Tablet ( mg)	Replikasi II Bobot Tablet (mg)	Replikasi III Bobot Tablet (mg)
1	655,2	651,3	660,3
2	661,4	656,1	652,9
3	659,1	660,8	663,2
4	654,2	650,1	650,1
5	657,5	651,9	656,4
6	646,3	663,3	662,4
7	654,4	658,2	670,1
8	658,9	656,6	657,7
9	662,6	649,9	648,2
10	660,6	652,5	656,2
$\bar{x}$	657,2	655,07	657,75
SD	4,67	4,67	6,56

Hasil Uji Keseragaman Bobot Tablet Formula V

No	Replikasi I Bobot Tablet ( mg)	Replikasi II Bobot Tablet (mg)	Replikasi III Bobot Tablet (mg)
1	654,4	656,8	654,5
2	650,7	655,5	659,1
3	657,5	661,2	641,9
4	649,7	661,3	672,6
5	661,2	650,4	669,1
6	650,2	653,4	650,7
7	648,2	660,7	652,4
8	649,8	652,7	650,5
9	663,2	652,5	640,8
10	652,1	660,7	652,4
$\bar{x}$	653,7	656,52	654,4
SD	5,23	4,19	10,26

Hasil Uji Keseragaman Bobot Tablet Formula VI

No	Replikasi I Bobot Tablet ( mg)	Replikasi II Bobot Tablet (mg)	Replikasi III Bobot Tablet (mg)
1	656,2	661,7	661,4
2	660,4	662,2	650,4
3	663,7	651,9	657,2
4	654,9	650,1	650,2
5	650,5	654,2	651,8
6	649,8	667,2	646,9
7	650,1	650,2	672,1
8	657,2	652,9	664,1
9	647,9	647,4	662,8
10	661,3	661,4	656,2
$\bar{x}$	655,2	655,9	657,3
SD	5,49	6,65	7,82

Hasil Uji Keseragaman Bobot Tablet Formula VII.

No	Replikasi I Bobot Tablet ( mg)	Replikasi II Bobot Tablet (mg)	Replikasi III Bobot Tablet (mg)
1	653,1	651,3	655,8
2	652,0	661,9	654,4
3	656,4	654,7	665,1
4	648,3	660,1	653,9
5	660,6	652,6	661,3
6	658,4	651,5	649,5
7	655,2	653,1	650,2
8	659,0	652,8	660,7
9	659,7	653,1	650,6
10	655,8	650,7	651,2
$\bar{x}$	655,85	654,18	655,27
SD	3,85	3,79	5,40

**LAMPIRAN C**  
**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	254	
	4052	4999	5403	5825	5764	5859	5928	5961	6022	6056	6082	6106	6142	6169	6200	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	99,29	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	27,15	27,05	26,92	26,83	26,69	26,50	26,50	26,41	26,30	26,27	26,23	26,18	26,14	26,12		
4	7,71	6,94	6,59	6,30	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	5,63		
	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		
	16,25	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	5,89	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	9,35	8,45	7,85	7,45	7,13	7,00	6,84	6,71	6,62	6,54	6,47	6,25	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		
	11,28	8,85	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	5,05	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		
	10,58	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	4,86	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	$\infty$
10	4,06	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	2,56	2,56	2,55	2,54
	10,04	7,56	6,56	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	3,99	3,58	3,36	3,20	3,09	3,01	2,95	2,90	2,85	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
	5,65	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	4,16	4,02	3,94	3,86	3,80	3,74	3,70	3,66	3,62	3,60
12	4,75	3,98	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
	5,33	6,33	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	3,45	3,41	3,38	3,36
13	4,67	3,90	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	2,41	2,38	2,34	2,32	2,28	2,26	2,24	2,22	2,21
	9,31	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	4,59	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
	6,86	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	2,16	2,15	2,12	2,10	2,08	2,07
	6,68	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	2,29	2,24	2,20	2,16	2,12	2,09	2,07	2,04	2,02	2,01
	6,53	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	3,16	3,10	3,01	2,96	2,89	2,86	2,80	2,77	2,75
17	4,44	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
	6,41	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	3,15	3,06	3,00	2,92	2,86	2,79	2,76	2,70	2,67	2,65
18	4,41	3,55	3,15	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
	6,28	6,01	5,04	4,53	4,20	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
	6,18	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
	6,10	5,85	4,94	4,43	4,10	3,87	3,71	3,56	3,45	3,37	3,30	3,22	3,13	3,06	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	2,26	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
	6,02	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	2,65	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	1,95	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
	7,86	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 D**  
**TABEL UJI HSD**

k d. 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	4.01	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
$\infty$	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: Scheffler (1987).

**LAMPIRAN E**  
**TABEL UJI T**

v	$\alpha$				
	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 F**  
**HASIL UJI STATISTIK KEKERASAN TABLET ANTA**  
**FORMULA TABLET EKSTRAK DAUN PARE**

KEKERASAN	N	Subset for alpha = 0,05	
		1	2
4.00	3	5.8567	
5.00	3	5.8933	
6.00	3	5.9567	
7.00	3		7.4467
2.00	3		7.4933
1.00	3		7.9267
3.00	3		8.0733
Sig.		1.000	.444

**ANOVA**  
**KEKERASAN**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.169	6	3.028	21.003	.000
Within Groups	2.018	14	.144		
Total	20.187	20			



**UJI HSD  
KEKERASAN**

(I) kekerasan	(J) kekerasan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.43333	.31003	.795	-.6253	1.4920
	3.00	-.14667	.31003	.999	-1.2053	.9120
	4.00	2.07000*	.31003	.000	1.0114	3.1286
	5.00	2.03333*	.31003	.000	.9747	3.0920
	6.00	1.97000*	.31003	.000	.9114	3.0286
2.00	1.00	-.43333	.31003	.795	-1.4920	.6253
	3.00	-.58000	.31003	.527	-1.6386	.4786
	4.00	1.63667*	.31003	.002	.5780	2.6953
	5.00	1.60000*	.31003	.002	.5414	2.6586
	6.00	1.53667*	.31003	.003	.4780	2.5953
3.00	1.00	.04667	.31003	1.000	-1.0120	1.1053
	2.00	.14667	.31003	.999	-.9120	1.2053
	4.00	.58000	.31003	.527	-.4786	1.6386
	5.00	2.21667*	.31003	.000	1.1580	3.2753
	6.00	2.18000*	.31003	.000	1.1214	3.2386
4.00	1.00	2.11667*	.31003	.000	1.0580	3.1753
	2.00	.62667	.31003	.444	-.4320	1.6853
	1.00	-2.07000*	.31003	.000	-3.1286	-1.0114
	2.00	-1.63667*	.31003	.002	-2.6953	-.5780
	3.00	-2.21667*	.31003	.000	-3.2753	-1.1580
5.00	1.00	-.03667	.31003	1.000	-1.0953	1.0220
	2.00	-1.00000	.31003	1.000	-1.1586	.9586
	3.00	-1.59000*	.31003	.002	-2.6486	-.5314
	1.00	-2.03333*	.31003	.000	-3.0920	-.9747
	2.00	-1.60000*	.31003	.002	-2.6586	-.5414
	3.00	-2.18000*	.31003	.000	-3.2386	-1.1214

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	4.00	.03667	.31003	1.000	-1.0220	1.0953
	6.00	-.06333	.31003	1.000	-1.1220	.9953
	7.00	-1.55333*	.31003	.003	-2.6120	-.4947
6.00	1.00	-1.97000*	.31003	.000	-3.0286	-.9114
	2.00	-1.53667*	.31003	.003	-2.5953	-.4780
	3.00	-2.11667*	.31003	.000	-3.1753	-1.0580
	4.00	.10000	.31003	1.000	-.9586	1.1586
	5.00	.06333	.31003	1.000	-.9953	1.1220
	7.00	-1.49000*	.31003	.004	-2.5486	-.4314
7.00	1.00	-.48000	.31003	.714	-1.5386	.5786
	2.00	-.04667	.31003	1.000	-1.1053	1.0120
	3.00	-.62667	.31003	.444	-1.6853	.4320
	4.00	1.59000*	.31003	.002	.5314	2.6486
	5.00	1.55333*	.31003	.003	.4947	2.6120
	6.00	1.49000*	.31003	.004	.4314	2.5486

\*. The mean difference is significant at the 0.05 level

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**LAMPIRAN G**  
**HASIL UJI STATISTIK KERAPUHAN ANTAR FORMULA**  
**TABLET EKSTRAK DAUN PARE**

Subset for alpha = 0.05				
Kerapuhan	N	1	2	3
3.00	3	.5067		
2.00	3	.5223		
7.00	3	.5417		
1.00	3	.5623		
4.00	3		.7207	
6.00	3		.7463	.7463
5.00	3			.7813
Sig.		.065	.738	.427

**ANOVA**  
**KERAPUHAN**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.251	6	.042	96.065	.000
Within Groups	.006	14	.000		
Total	.257	20			

**UJI HSD  
KERAPUHAN**

(I) kerap uhan	(J) kerap uhan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.04000	.01704	.289	-.0182	.0982
	3.00	.05567	.01704	.065	-.0025	.1139
	4.00	-.15833*	.01704	.000	-.2165	-.1001
	5.00	-.21900*	.01704	.000	-.2772	-.1608
	6.00	-.18400*	.01704	.000	-.2422	-.1258
	7.00	.02067	.01704	.878	-.0375	.0789
2.00	1.00	-.04000	.01704	.289	-.0982	.0182
	3.00	.01567	.01704	.963	-.0425	.0739
	4.00	-.19833*	.01704	.000	-.2565	-.1401
	5.00	-.25900*	.01704	.000	-.3172	-.2008
	6.00	-.22400*	.01704	.000	-.2822	-.1658
3.00	7.00	-.01933	.01704	.907	-.0775	.0389
	1.00	-.05567	.01704	.065	-.1139	.0025
	2.00	-.01567	.01704	.963	-.0739	.0425
	4.00	-.21400*	.01704	.000	-.2722	-.1558
	5.00	-.27467*	.01704	.000	-.3329	-.2165
	6.00	-.23967*	.01704	.000	-.2979	-.1815
4.00	7.00	-.03500	.01704	.427	-.0932	.0232
	1.00	.15833*	.01704	.000	.1001	.2165
	2.00	.19833*	.01704	.000	.1401	.2565
	3.00	.21400*	.01704	.000	.1558	.2722
	5.00	-.06067*	.01704	.039	-.1189	-.0025
	6.00	-.02567	.01704	.738	-.0839	.0325
5.00	7.00	.17900*	.01704	.000	.1208	.2372
	1.00	.21900*	.01704	.000	.1608	.2772
	2.00	.25900*	.01704	.000	.2008	.3172
	3.00	.27467*	.01704	.000	.2165	.3329
	4.00	.06067*	.01704	.039	.0025	.1189
	6.00	.03500	.01704	.427	-.0232	.0932
6.00	7.00	.23967*	.01704	.000	.1815	.2979
	1.00	.18400*	.01704	.000	.1258	.2422

	2.00	.22400*	.01704	.000	.1658	.2822
	3.00	.23967*	.01704	.000	.1815	.2979
	4.00	.02567	.01704	.738	-.0325	.0839
	5.00	-.03500	.01704	.427	-.0932	.0232
	7.00	.20467*	.01704	.000	.1465	.2629
7.00	1.00	-.02067	.01704	.878	-.0789	.0375
	2.00	.01933	.01704	.907	-.0389	.0775
	3.00	.03500	.01704	.427	-.0232	.0932
	4.00	-.17900*	.01704	.000	-.2372	-.1208
	5.00	-.23967*	.01704	.000	-.2979	-.1815
	6.00	-	.01704	.000	-.2629	-.1465
		.1467*				

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**LAMPIRAN H**  
**HASIL UJI STATISTIK WAKTU HANCUR TABLET ANTAR**  
**FORMULA TABLET EKSTRAK DAUN PARE**

Waktu hancur	N	Subset for alpha = 0.05			
		1	2	3	4
6.00	3	9.0400			
4.00	3	9.1200			
5.00	3	9.3000			
1.00	3		10.9700		
7.00	3		11.2400	11.2400	
2.00	3			11.4667	
3.00	3				12.5400
Sig.		.469	.428	.614	1.000

**ANOVA**  
**WAKTU HANCUR**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	34.008	6	5.668	218.082	.000
Within Groups	.364	14	.026		
Total	34.372	20			

**UJI HSD  
WAKTU HANCUR**

(I) waktu hancu r	(J) wakt uhan cur	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.49667*	.13163	.026	-.9461	-.0472
	3.00	-1.57000*	.13163	.000	-2.0195	-1.1205
	4.00	1.85000*	.13163	.000	1.4005	2.2995
	5.00	1.67000*	.13163	.000	1.2205	2.1195
	6.00	1.93000*	.13163	.000	1.4805	2.3795
	7.00	-.27000	.13163	.428	-.7195	.1795
2.00	1.00	.49667*	.13163	.026	.0472	.9461
	3.00	-1.07333*	.13163	.000	-1.5228	-.6239
	4.00	2.34667*	.13163	.000	1.8972	2.7961
	5.00	2.16667*	.13163	.000	1.7172	2.6161
	6.00	2.42667*	.13163	.000	1.9772	2.8761
	7.00	.22667	.13163	.614	-.2228	.6761
3.00	1.00	1.57000*	.13163	.000	1.1205	2.0195
	2.00	1.07333*	.13163	.000	.6239	1.5228
	4.00	3.42000*	.13163	.000	2.9705	3.8695
	5.00	3.24000*	.13163	.000	2.7905	3.6895
	6.00	3.50000*	.13163	.000	3.0505	3.9495
	7.00	1.30000*	.13163	.000	.8505	1.7495
4.00	1.00	-1.85000*	.13163	.000	-2.2995	-1.4005
	2.00	-2.34667*	.13163	.000	-2.7961	-1.8972
	3.00	-3.42000*	.13163	.000	-3.8695	-2.9705
	5.00	-.18000	.13163	.810	-.6295	.2695
	6.00	.08000	.13163	.995	-.3695	.5295
	7.00	-2.12000*	.13163	.000	-2.5695	-1.6705
5.00	1.00	-1.67000*	.13163	.000	-2.1195	-1.2205
	2.00	-2.16667*	.13163	.000	-2.6161	-1.7172
	3.00	-3.24000*	.13163	.000	-3.6895	-2.7905

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	4.00	.18000	.13163	.810	-.2695	.6295
	6.00	.26000	.13163	.469	-.1895	.7095
	7.00	-1.94000*	.13163	.000	-2.3895	-1.4905
6.00	1.00	-1.93000*	.13163	.000	-2.3795	-1.4805
	2.00	-2.42667*	.13163	.000	-2.8761	-1.9772
	3.00	-3.50000*	.13163	.000	-3.9495	-3.0505
	4.00	-.08000	.13163	.995	-.5295	.3695
	5.00	-.26000	.13163	.469	-.7095	.1895
	7.00	-2.20000*	.13163	.000	-2.6495	-1.7505
7.00	1.00	.27000	.13163	.428	-.1795	.7195
	2.00	-.22667	.13163	.614	-.6761	.2228
	3.00	-1.30000*	.13163	.000	-1.7495	-.8505
	4.00	2.12000*	.13163	.000	1.6705	2.5695
	5.00	1.94000*	.13163	.000	1.4905	2.3895
	6.00	2.20000*	.13163	.000	1.7505	2.6495

\*. The mean difference is significant at the 0.05 level.

---



**LAMPIRAN I**  
**HASIL ANOVA UJI KEKERASAN PADA PROGRAM DESIGN**  
**EXPERT**

**Response                    1                    Kekerasan Tablet**

**ANOVA for Special Cubic Mixture Model**

**\*\*\* Mixture Component Coding is L\_Pseudo. \*\*\***

**Analysis of variance table [Partial sum of squares - Type III]**

<b>Source</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F value</b>	<b>Pvalue Prob &gt; F</b>
Model	7,83	6	1.30	6.366E+007	< 0.0001
<i>Linear</i>	0,42		0.21	6.366E+007	significant
<i>Mixture</i>	2,66	2	2.66	6.366E+007	< 0.0001
<i>AB</i>	2,78	1	2.78	6.366E+007	< 0.0001
<i>AC</i>	3,33	1	3.33	6.366E+007	< 0.0001
<i>BC</i>	3,07	1	3.07	6.366E+007	< 0.0001
<i>ABC</i>	0,000	1	0.000		< 0.0001
Pure	7,83	3			
Total		9			
Cor					
Total					

The Model F-value of 63660000.00 implies the model is significant. There is only a 0.01% 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 Linear Mixture Components, AB, AC, BC, ABC 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.	0.000	R-Squared
Mean7.21	Adj R-Squared	1.0000
C.V. %	0.000	Pred R-Squared
PRESS	N/A	Adeq Precision

Case(s) with leverage of 1.0000: Pred R-Squared and PRESS statistic not defined

Component	Coefficient Estimate	df	Error Standard	95% CI Low	95% CI High
A-Mg Stearat	7,44	1			1.31
B-Talk	7,93	1			1.31
C-SSG	8,07	1			1.31
AC	-7,30	1			1.50
AB	-7,46	1			1.50
BC	-8,16	1			1.50
ABC	60,03	1			1.61

**Final Equation in Terms of L\_Pseudo Components:**

(Kekerasan Tablet)<sup>1</sup> =

+7.44 \* A

+7.93 \* B

+8.07 \* C

-7.30 \* A \* B

-7.46 \* A \* C

-8.16 \* B \* C

+60.03 \* A \* B \* C

**Final Equation in Terms of Real Components:**

(Kekerasan Tablet)<sup>1</sup> =

+7.44000 \* Mg Stearat

+7.93000 \* Talk

+8.07000 \* SSG

-7.30000 \* Mg Stearat \* Talk

-7.46000 \* Mg Stearat \* SSG

-8.16000 \* Talk \* SSG

+60.03000 \* Mg Stearat \* Talk \* SSG

### Final Equation in Terms of Actual Components:

$$\begin{aligned} & \text{(Kekerasan Tablet)}^1 & & = \\ & +7.44000 & & * \text{Mg Stearat} \\ & +7.93000 & & * \text{Talk} \\ & +8.07000 & & * \text{SSG} \\ & -7.30000 & & * \text{Mg Stearat} * \text{Talk} \\ & -7.46000 & & * \text{Mg Stearat} * \text{SSG} \\ & -8.16000 & & * \text{Talk} * \text{SSG} \\ & +60.03000 & & * \text{Mg Stearat} * \text{Talk} * \text{SSG} \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals.
- 2) Studentized residuals versus predicted values to check for constant error.
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values.
- 4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

**LAMPIRAN J**  
**HASIL ANOVA UJI KERAPUHAN PADA PROGRAM DESIGN**  
**EXPERT**

**Response                    2                    Kerapuhan Tablet**

**ANOVA for Special Cubic Mixture Model**

**\*\*\* Mixture Component Coding is L\_Pseudo. \*\*\***

**Analysis of variance table [Partial sum of squares - Type III]**

<b>Source</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F value</b>	<b>Pvalue Prob &gt; F</b>
Model	0.11	6	0.018	6.366E+007	< 0.0001
	2.422E-	2	1.211E-	6.366E+007	significant
<i>LinearMixture</i>	003	1	003	6.366E+007	< 0.0001
<i>AB</i>	0.026	1	0.050	6.366E+007	< 0.0001
<i>AC</i>	0.048	1	0.048	6.366E+007	< 0.0001
<i>BC</i>	0.044	1	0.044	6.366E+007	< 0.0001
<i>ABC</i>	0.050	3	0.026		< 0.0001
Pure Total	0.11	9			
Cor Total	0.000				

The Model F-value of 63660000.00 implies the model is significant. There is only a 0.01% 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 Linear Mixture Components, AB, AC, BC, ABC 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.	0.000	R-Squared
Mean0.60	Adj R-Squared	1.0000
C.V. %	0.000	Pred R-Squared
PRESS	N/A	Adeq Precision

Case(s) with leverage of 1.0000: Pred R-Squared and PRESS statistic not defined

Component	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
A-Mg	0.56	1				1.31
Stearat	0.52	1				1.31
B-Talk	0.51	1				1.31
C-SSG	0.72	1				1.50
AC	0.98	1				1.50
AB	0.94	1				1.50
BC	-7.65	1				1.61
ABC						

### Final Equation in Terms of L\_Pseudo Components:

Kerapuhan Tablet	=
+0.56	* A
+0.52	* B
+0.51	* C
+0.72	* A * B
+0.98	* A * C
+0.94	* B * C
-7.65	* A * B * C

### Final Equation in Terms of Real Components:

Kerapuhan Tablet =  
+0.56000                    \* Mg Stearat  
+0.52000                    \* Talk  
+0.51000                    \* SSG  
+0.72000                \* Mg Stearat \* Talk  
+0.98000                \* Mg Stearat \* SSG  
+0.94000                    \* Talk \* SSG  
-7.65000   \* Mg Stearat \* Talk \* SSG

### Final Equation in Terms of Actual Components:

Kerapuhan Tablet =  
+0.56000                    \* Mg Stearat  
+0.52000                    \* Talk  
+0.51000                    \* SSG  
+0.72000                \* Mg Stearat \* Talk  
+0.98000                \* Mg Stearat \* SSG  
+0.94000                    \* Talk \* SSG  
-7.65000   \* Mg Stearat \* Talk \* SSG

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals.
- 2) Studentized residuals versus predicted values to check for constant error.
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values.
- 4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

**LAMPIRAN K**  
**HASIL ANOVA UJI WAKTU HANCUR PADA PROGRAM DESIGN**  
**EXPERT**

**Response                    3                    Waktu Hancur Tablet**

**ANOVA for Special Cubic Mixture Model**

**\*\*\* Mixture Component Coding is L\_Pseudo. \*\*\***

**Analysis of variance table [Partial sum of squares - Type III]**

<b>Source</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F value</b>	<b>Pvalue Prob &gt; F</b>
Model	15.33	6	5.30	6.366E+007	< 0.0001
<i>LinearMixture</i>	2.27	2	1.14	6.366E+007	significant
<i>AB</i>	3.53	1	3.53	6.366E+007	< 0.0001
<i>AC</i>	4.82	1	4.82	6.366E+007	< 0.0001
<i>BC</i>	7.03	1	7.03	6.366E+007	< 0.0001
<i>ABC</i>	5.30	1	2.56	6.366E+007	< 0.0001
Pure Total	0.000	3			< 0.0001
Cor Total	15.33	9			

The Model F-value of 63660000.00 implies the model is significant. There is only a 0.01% 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 Linear Mixture Components, AB, AC, BC, ABC 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.	0.000	R-Squared
Mean10.87	Adj R-Squared	1.0000
C.V. %	0.000	Pred R-Squared
PRESS	N/A	Adeq Precision

Case(s) with leverage of 1.0000: Pred R-Squared and PRESS statistic not defined

Component	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
A-Mg Stearat	10.97	1				1.31
B-Talk	78.90	1				1.31
C-SSG	12.54	1				1.31
AC	-8.40	1				1.50
AB	9.82	1				1.50
BC	-11.86	1				1.50
ABC	11.47	1				1.61

### Final Equation in Terms of L\_Pseudo Components:

$$\begin{aligned}
 \text{Waktu Hancur Tablet} &= \\
 &+10.97 \quad * A \\
 &+11.47 \quad * B \\
 &+12.54 \quad * C \\
 &-8.40 \quad * A * B \\
 &-9.82 \quad * A * C \\
 &-11.86 \quad * B * C \\
 &+78.90 \quad * A * B * C
 \end{aligned}$$



### Final Equation in Terms of Real Components:

$$\begin{aligned} \text{Waktu Hancur Tablet} &= \\ +10.97000 & \quad * \text{Mg Stearat} \\ +11.47000 & \quad * \text{Talk} \\ +12.54000 & \quad * \text{SSG} \\ -8.40000 & \quad * \text{Mg Stearat} * \text{Talk} \\ -9.82000 & \quad * \text{Mg Stearat} * \text{SSG} \\ -11.86000 & \quad * \text{Talk} * \text{SSG} \\ +78.90000 & * \text{Mg Stearat} * \text{Talk} * \text{SSG} \end{aligned}$$

### Final Equation in Terms of Actual Components:

$$\begin{aligned} \text{Waktu Hancur Tablet} &= \\ +10.97000 & \quad * \text{Mg Stearat} \\ +11.47000 & \quad * \text{Talk} \\ +12.54000 & \quad * \text{SSG} \\ -8.40000 & \quad * \text{Mg Stearat} * \text{Talk} \\ -9.82000 & \quad * \text{Mg Stearat} * \text{SSG} \\ -11.86000 & \quad * \text{Talk} * \text{SSG} \\ +78.90000 & * \text{Mg Stearat} * \text{Talk} * \text{SSG} \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

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- 2) Studentized residuals versus predicted values to check for constant error.
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values.
- 4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

## LAMPIRAN L DETERMINASI DAUN PARE



DINAS KESEHATAN PROPINSI JAWA TIMUR

UPT MATERIA MEDICA

Jalan Lahor No.87 Telp. (0341) 593396 Batu (65313)

KOTA BATU

Nomor : 074 / 01/ 101.8 / 2011  
Sifat : Biasa  
Perihal : **Determinasi Tanaman Pare**  
Memenuhi permohonan saudara :  
Nama : VALENTIN AGUNG PURWANDARI  
NIM : 2443007054  
Fakultas : Fakultas Farmasi Universitas Widya Mandala Surabaya

### I. Perihal determinasi tanaman Pare

Kingdom : Plantae (Tumbuhan)  
Subkingdom : Tracheobionta (Tumbuhan berpembuluh)  
Super Divisi : Spermatophyta (Menghasilkan biji)  
Divisi : Magnoliophyta (Tumbuhan berbunga)  
Kelas : Dicotyledonae  
Bangsa : Cucurbitales  
Suku : Cucurbitaceae  
Marga : Momordia  
Jenis : *Momordica charantia* L  
Sinonim : *M.balsamina*, Blanco. = *M.balsamina*, Descourt. =  
*M.cylindrica*, Blanco. = *M.jagorana* C.Koch. =  
*M.operculata*, Vell. = *Cucumis africanus*, Lindl.

Paria, pare, pare pahit, pepareh (Jawa). Prieu, peria, foria,; Pepare, kambeh, paria (Sumatera). Paya, paria, truwuk, ; Paita, paliak, pariak, pania, pepule (Nusa tenggara). Poya, ; Pudu, pentu, paria belenggede, palia (Sulawesi). Papariane,; Pariane, papari, kakariano, taparipong, papariano, popare, pepare.

Kunci determinasi : 1b- 2b - 3b - 4b - 6 b - 7b - 9b - 10 b- 11b - 12 b - 13 b - 14b - 15a - 109a - 110b - 111b - 112 b- 117 b- 1 a-2 b -3b-3.

2. Nama Simplisia : Momordicae Folium / daun pare  
3. Kandungan : Daun: Momordisin, momordin, karantin, asam trikosanik, resin, asam resinat, saponin, vitamin A dan C serta minyak lemak terdiri dari asam oleat, asam linoleat, asam stearat dan L.oleostearat. Buah: Karantin, hydroxytryptamine, vitamin A,B dan C. Biji: Momordisin  
4. Penggunaan : Penelitian  
5. Daftar Pustaka : - Anonim, <http://www.ipteknet.com> /Pare , Diakses tanggal 25 Oktober 2010  
- Syamsuhidayat, Sri sugati, Hutapea, Johny Ria. *Inventaris Tanaman Obat Indonesia* Departemen Kesehatan Republik Indonesia : Badan Penelitian Dan Pengembangan Kesehatan.  
- Steenis,CGGJ Van Dr , *FLORA*, 2008, Pradnya Paramita , Jakarta

Demikian determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 05 Januari 2011  
An. Kepala UPT Materia Medica Batu  
Ka Sub Bag TU



# LAMPIRAN M SERTIFIKAT ANALISIS TALK

Talkum :

 **SUN PLAN DEVELOPMENT LTD.**

## CERTIFICATE OF ANALYSIS

INVOICE NO : 1514

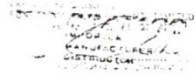
TO: PT BRATACO JL. KELESTENG NO 3  
BANDUNG QQ PT BRATACO JL. MANUGA  
BESAR V/S JAKARTA, INDONESIA  
NPWP:01.130.689.1-032.001

RE: 48 MT TALC POWDER HAICHEN SHIPED PERMITS THLANDING TO 152 FROM BAYOU  
CHINA SEAPORT TO TG.PRIK PORT, JAKARTA, INDONESIA. ABOUT 19 OCT 2013  
DRAWN UNDER IRREVOCABLE DC NO 02/03U/06-5 DD 1958PT/3 OF BANK NISAPATI S.W.I.T  
ADDRESS : NISPIDJA)

COMMODITY : TALC POWDER HAICHEN  
QUANTITY : 48 MT

SiO <sub>2</sub> :	69.7%
MgO :	30.8%
WHITENESS :	92.6%
Fe <sub>2</sub> O <sub>3</sub> :	0.4%
CO <sub>2</sub> :	0.26%
AD <sub>03</sub> :	0.3%
LOI :	6.0%
FINENESS :	98.5% PASSING THROUGH 325 MESH
PH :	7.9
MOISTURE :	0.38%
ASBESTOS :	FREE

 **BRATACO**  
IMPORTER  
MANUFACTURER  
DISTRIBUTOR

  
MANUFACTURER  
DISTRIBUTOR

# LAMPIRAN N SERTIFIKAT ANALISIS MAGNESIUM STEARAT

Magnesium stearat:

 SUN PLAN DEVELOPMENT LTD.

## CERTIFICATE OF ANALYSIS

INV.0005/07/0514

TO: PT BRATACO JL. KELENTENG NO. 3  
BANDUNG QQ PT BRATACO JL. MANGGA  
BESAR V/5 JAKARTA, INDONESIA  
NPWP:01.130.689.1-032.001

RE: 48 MT TALC POWDER HAICHER SHIPPED PER V. SHIPHLAND 501158152 FROM BAYICOUAN  
CHINA SEAPORT TO TG.PRIOK PORT, JAKARTA, INDONESIA ON ARRIVAL 13 OCT 2014  
DRAWN UNDER IRREVOCABLE DC NO 0203U/0614 DD 1951/PTU OF BANK NISIPUJA  
ADDRESS: NISIPUJA

COMMODITY : TALC POWDER HAICHER  
QUANTITY : 48 MT

SiO <sub>2</sub> :	69.5%
MgO :	30.8%
WHITENESS :	92.8%
CaO :	0.4%
CO <sub>2</sub> :	0.25%
Al <sub>2</sub> O <sub>3</sub> :	0.3%
LOI :	6.0%
FINENESS :	98.5% PASSING THROUGH 325 MESH
pH :	7.9
MOISTURE :	0.38%
ASBESTOS :	FREE

 **BRATACO**  
IMPORTER  
MANUFACTURER  
DISTRIBUTOR

**LAMPIRAN O**  
**SERTIFIKAT ANALISIS SODIUM STARCH GLYCOLATE**

YUNG ZIP CHEMICAL, INC.      FAX NO. : 82 021 46932511      Aug. 06 2007 11:01AM P1  
*Y/Bgs Sidiang Bantam baten*

YUNG ZIP CHEMICAL IND. CO., LTD.  
 59, Yu Shih Road  
 Youth Industrial District  
 Tachia, Taiwan, 437  
 R. O. C.  
 TEL: 886-4-26810780, 26811344      FAX: 886-4-26812911

CERTIFICATE OF ANALYSIS

**DST**  
 (Sodium Starch Glycolate)

Lot No.: S1GA00341-2

Mfg. Date: May. 02, 2007

Analysis Following: USP 30-NF 25

Exp. Date: May. 01, 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	5.9
Loss on drying	Not more than 10.0 %	4.8 %
Iron	Not more than 0.002 %	Passed
Heavy metals	Not more than 0.002 %	Passed
Sodium chloride	Not more than 7.0 %	4.5 %
Sodium glycolate	Not more than 2.0 %	1.3 %
Assay	Sodium (Na) (2.8% to 4.2%)	3.1 %

**Conclusion : Passed**