LAMPIRAN 1

DAFTAR NILAI-NILAI BILANGAN GELOMBANG INFRA MERAH KETOKONAZOL PADA PELAT KBr. (HASIL PENGAMATAN)

No.	Bilangan Gelombang (cm^{-1})	Transmitan
9.	1647,36	33,2
10.	1585,63	67,2
11.	1556,70	72,4
12.	1512,33	34,7
13.	1458,32	55,6
14.	1417,81	61,0
15.	1373,44	71,0
16.	1290,49	67,5
17.	1246,13	42,4
18.	1226,84	55,8
19.	1201,76	56,2
20.	1174,75	66,4
21.	1107,24	68,3
22.	1080,23	72,2
23.	1035,87	58,1
24.	1006,93	62,0
25.	981,86	71,6
26.	906,63	75,3
27.	866,12	75,0
28.	839,11	71,7
29.	815,96	61,3
30.	790,89	78,7
31.	736,87	77,7
32.	704,08	79,1
33.	665,50	73,0
34.	588,34	81,6
35.	567,12	83,5
36.	520,83	79,4
37.	457,17	83,2

LAMPIRAN 2

PERHITUNGAN UJI HOMOGENITAS SEDIAAN KRIM KETOKONAZOL FORMULA I

CUPLIKAN	dk (n-1)	1/dk	s^2i	$(n-1)s^2i$	$(dk)(\log s^2i)$
1	4	0,25	0,27455	1,0982	-2,24551
2	4	0,25	0,21381	0,85524	-2,67989
3	4	0,25	0,5348	2,1392	-1,08723
JUMLAH	12	0,75	-	4,09264	-6,01263

1. Ho : $S^2A = S^2B = S^2C$

   artinya, pengukuran-pengukuran memberikan varians yang tidak berbeda secara signifikan.

2. Varians Gabungan $(S^2) = \bar{z}\ (ni - 1)\ S^2i\ /\ \bar{z}\ (ni - 1)$

   $= 0,34105$

   Konstanta BARTLETT (B) $= (\log S^2)\ \bar{z}\ (ni - 1)$

   $= - 5,6062$

   $X^2h = (\ln 10)\ (B - \bar{z}\ (ni - 1)\ \log S^2i)$

   $= 0,9358$

3. db = (n-1) (r-1) = 8 ; los = 5% ; X^2 (95%,8) = 15,5

4. Kesimpulan

   Karena $X^2h < X^2$ tabel maka Ho diterima dan Ha ditolak.

   Dengan perkataan lain, hasil-hasil pengukuran memberikan varians yang berbeda.

LAMPIRAN 3

PERHITUNGAN UJI HOMOGENITAS SEDIAAN KRIM

KETOKONAZOL FORMULA II

CUPLIKAN	dk (n-1)	1/dk	s^2i	$(n-1)s^2i$	$(dk)(\log s^2i)$
1	4	0,25	0,23339	0,93356	-2,52767
2	4	0,25	0,49014	1,96056	-1,23872
3	4	0,25	0,36024	1,44096	-1,77363
JUMLAH	12	0,75	-	4,33508	-5,54002

1. Ho : $S^2A = S^2B = S^2C$

   artinya, pengukuran-pengukuran memberikan varians yang tidak berbeda secara signifikan.

2. Varians Gabungan $(S^2) = \bar{z}\ (ni - 1)\ S^2i\ /\ \bar{z}\ (ni - 1)$

   $= 0.36126$

   Konstanta BARTLETT (B) $= (\log S^2)\ \bar{z}\ (ni - 1)$

   $= - 5.30616$

   $X^2h = (\ln 10)\ (B - \bar{z}\ (ni - 1) \log S^2i)$

   $= 0,5385$

3. db = (n-1) (r-1) = 8 ; los = 5% ; X^2 (95%,8) = 15,5

4. Kesimpulan

   Karena $X^2h < X^2$ tabel maka Ho diterima dan Ha ditolak.

   Dengan perkataan lain, hasil-hasil pengukuran memberikan varians yang berbeda.

LAMPIRAN 4

PERHITUNGAN UJI HOMOGENITAS SEDIAAN KRIM KETOKONAZOL FORMULA III

CUPLIKAN	dk (n-1)	1/dk	s^2i	$(n-1)s^2i$	(dk)(log s^2i)
1	4	0,25	0,33432	1,33726	-1,90335
2	4	0,25	0,19865	0,79459	-2,80765
3	4	0,25	0,18259	0,73034	-2,95409
JUMLAH	12	0,75	-	2,86219	-7,66509

1. Ho : $S^2A = S^2B = S^2C$

   artinya. pengukuran-pengukuran memberikan varians yang tidak berbeda secara signifikan.

2. Varians Gabungan $(S^2) = \bar{z}\ (ni - 1)\ S^2i\ /\ \bar{z}\ (ni - 1)$

   $= 0.23852$

   Konstanta BARTLETT (B) $= (\log S^2)\ \bar{z}\ (ni - 1)$

   $= -\ 7,46970$

   $X^2h = (\ln 10)\ (B - \bar{z}\ (ni - 1)\ \log S^2i)$

   $= 0,4499$

3. db = (n-1) (r-1) = 8 ; los = 5% : X^2 (95%,8) = 15,5

4. Kesimpulan

   Karena $X^2h < X^2$ tabel maka Ho diterima dan Ha ditolak.

   Dengan perkataan lain. hasil-hasil pengukuran memberikan varians yang berbeda.

LAMPIRAN 5

PERHITUNGAN UJI HOMOGENITAS SEDIAAN KRIM

KETOKONAZOL FORMULA IV

CUPLIKAN	dk (n-1)	1/dk	s^2i	$(n-1)s^2i$	$(dk)(\log s^2i)$
1	4	0,25	0,077897	0,31159	-4,43392
2	4	0,25	0,315058	1,26023	-2,00644
3	4	0,25	0,09647	0,38589	-4,06243
JUMLAH	12	0,75	-	1,95771	-10,50279

1. Ho : $S^2A = S^2B = S^2C$

   artinya, pengukuran-pengukuran memberikan varians yang tidak berbeda secara signifikan.

2. Varians Gabungan $(S^2) = \bar{z}\ (ni - 1)\ S^2i\ /\ \bar{z}\ (ni - 1)$

   $= 0.1631425$

   Konstanta BARTLETT (B) $= (\log S^2)\ \bar{z}\ (ni - 1)$

   $= - 9.44919$

   $X^2h = (\ln 10)\ (B - \bar{z}\ (ni - 1)\ \log S^2i)$

   $= 2,4260$

3. $db = (n-1)\ (r-1) = 8$; los = 5% ; $X^2\ (95\%,8) = 15,5$

4. Kesimpulan

   Karena $X^2h < X^2$ tabel maka Ho diterima dan Ha ditolak.

   Dengan perkataan lain, hasil-hasil pengukuran memberikan varians yang berbeda.

LAMPIRAN 6

PERHITUNGAN ANAVA BLOK ACAK TERHADAP PROSEN KADAR RATA-RATA KETOKONAZOL DALAM KRIM FORMULA I,II,III,IV

WAKTU HARI (BLOK)	F O R M U L A				JUMLAH (Jio)	J^2io
	F1	F2	F3	F4		
0	100	100	100	100	400	160000
5	99,89	100,4	100,07	100,23	400,59	160472,3481
10	99,24	99,98	99,73	99,85	398,3	159041,44
15	98,68	99,32	99,37	99,76	397,63	158109,6169
30	96,33	99,51	98,31	99,45	394,4	155551,36
45	95,38	98,96	97,88	98,79	391,01	152888,8201
60	92,38	98,31	96,55	97,70	385,44	148563,9936
90	89,69	97,55	95,18	96,52	378,94	143595,5236
Joi	772,59	794,53	787,39	792,3	3146,81	1238223,102
J^2oi	596895,3081	631277,9209	619983,0121	627739,29	2475895,531	-
Rata-2	96,57375	99,31625	98,42375	99,3975	-	-

Perhitungan JK :

b = 8

p = 4

$\Sigma (Y^2i) = 309624,4251$

$J = \Sigma Ji = 3146,81$

$JK.Total = \Sigma(Y^2i) - J^2/bp = 174.013347$

$JK.By = \Sigma(J^2io/p) - J^2/bp = 105,363747$

$JK.Py = \Sigma(J^2io/b) - J^2/bp = 36,529647$

JK.Ey = Total - By - Py = 32,119953

SV	db	JK	KT	F hitung	F(0,05)
By	7	105,363747	15,05196386	7,961018158	3,07
Py	3	36,529647	12,176549		
Ey	21	32,119953	1,529521571		
Total	31		-	-	-

db Total = Kn - 1

db Py = K - 1

db By = n - 1

db Ey = db Total - Py - By

KT = JK/db

F hitung = KT Py / KT Ey

Kriteria Pengujian :

- Bila F hitung > F (0.05) maka berbeda signifikan
- Bila F hitung > F (0.01) maka berbeda sangat signifikan

PENGUJIAN HIPOTESA :

a. H : pi = 0

   Yang berarti tidak ada perbedaan efek yang signifikan sebagai akibat perbedaan perlakuan

b. Kesimpulan :

   Karena F hitung > F (0,05), maka H_o ditolak dengan signifikan.

   Dengan perkataan lain perlakuan-perlakuan memberikan EFEK yang berbeda signifikan.

LAMPIRAN 7

UJI TUCKEY (HSD) TERHADAP PROSEN KADAR RATA-RATA KETOKONAZOL DALAM KRIM FORMULA I,II,III,IV

PERLAKUAN	PERBEDAAN RATA-RATA	HSD (5%)	KESIMPULAN
F_1 vs F_2	2,7425	1,73	Signifikan
F_1 vs F_3	1,85	1,73	Signifikan
F_1 vs F_4	2,46375	1,73	Signifikan
F_2 vs F_3	0,8925	1,73	Tidak Signifikan
F_2 vs F_4	0,27875	1,73	Tidak Signifikan
F_3 vs F_4	0,61375	1,73	Tidak Signifikan

F_1 = 96,57375 n1 = 8

F_2 = 99,31625 n2 = 8

F_3 = 98,42375 n3 = 8

F_4 = 99,0375 n4 = 8

db = 21 g = 3,945

KT = 1,52921571 p = 4

$$HSD\ (5\%) = \frac{g\ (0,05;p,db)}{\sqrt{2}} \sqrt{KT\ (1/n\ A + 1/n\ B)}$$

LAMPIRAN 8

PERHITUNGAN ANAVA ACAK SEMPURNA TETAPAN LAJU PERURAIAN (K) KETOKONAZOL DALAM KRIM FORMULA I,II,III,IV

Ulangan	F O R M U L A				JUMLAH
	F1	F2	F3	F4	(Jio)
1	0,1183	0,0309	100	100	400
2	0,1165	0,0294	100,07	100,23	400,59
3	0,1213	0,0317	99,73	99,35	398,8
n	3	3	3	3	12
Rata-2	0,1187	0,03067	0,0567	0,0415	-
Ji	0,3561	0,0920	0,1701	0,1245	0,7427
J^2i	0,12680721	$8,464.10^{-3}$	0,02893401	0,01550025	0,17970547

Perhitungan JK :

P = 4

n = 3

N = 12

$\Sigma (Y^2i) = 0,05990806$

$J = \Sigma Ji = 0,7427$

$JK.Total = \Sigma(Y^2i) - J^2/N = 0,01394111917$

$JK.Py = \Sigma(J^2i)/n - J^2/N = 0,0139348825$

$JK.Ey = Total - Py = 6,23667.10^{-6}$

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SV	db	JK	KT	F hitung	F(0,05)
Py	3	0,0139348825	$4,644960833.10^{-3}$	5958,251906	4,07
Ey	8	$0,236676.10^{-6}$	$7,795845.10^{-7}$		
Total	11	0,01394111913	-	-	-

db (Total) = Kn - 1 KT = JK/db

db (Py) = (K - 1) F hitung = KT (Py) / KT (Ey)

db (Ey) = db (Total - Py)

Kriteria Pengujian :

- Bila F hitung > F (0,05) maka berbeda signifikan
- Bila F hitung > F (0.01) maka berbeda sangat signifikan

PENGUJIAN HIPOTESA :

a. H : pi = 0

Yang berarti tidak ada perbedaan efek yang signifikan sebagai akibat perbedaan perlakuan

b. Kesimpulan :

Karena F hitung > F (0,05), maka H ditolak dengan signifikan.

Dengan perkataan lain perlakuan-perlakuan memberikan EFEK yang berbeda signifikan.

LAMPIRAN 9

UJI TUCKEY (HSD) TERHADAP TETAPAN LAJU PERURAIAN (K) DALAM SEDIAAN KRIM FORMULA I, II, III, IV

PERLAKUAN	PERBEDAAN RATA-RATA	HSD (5%)	KESIMPULAN
F_1 vs F_2	0.08803	0.0023092	Signifikan
F_1 vs F_3	0.062	0.0023092	Signifikan
F_1 vs F_4	0,0772	0,0023092	Signifikan
F_2 vs F_3	0,02603	0,0023092	Signifikan
F_2 vs F_4	0,01083	0,0023092	Signifikan
F_3 vs F_4	0,0152	0,0023092	Signifikan

F_1 = 0,1187 n1 = 3

F_2 = 0.03067 n2 = 3

F_3 = 0,0567 n3 = 3

F_4 = 0,0415 n4 = 3

db = 8 g = 4,53

KT = $7,795845.10^{-7}$ p = 4

$$HSD\ (5\%) = \frac{g\ (0,05;p,db)}{\sqrt{2}} \sqrt{KT\ (1/n\ A + 1/n\ B)}$$

LAMPIRAN 10

PERHITUNGAN ANAVA ACAK SEMPURNA "SELF-LIFE" (T 90%)

KETOKONAZOL DALAM KRIM FORMULA I,II,III,IV

Ulangan	F O R M U L A				JUMLAH
	F1	F2	F3	F4	
1	86,5722	333,4508	179,0925	252,3492	
2	87,7755	348,9048	179,2561	250,4701	
3	87,4448	325,5068	183,2300	249,1926	
n	3	3	3	3	12
Rata-2	87,2642	335,9391	180,5262	250,6706	-
Ji	261,7921	1007,8173	541,5786	752,0118	2563,1998
J^2i	68535,10362	1015695,71	293307,38	293307,38	1943059,941

Perhitungan JK :

P = 4

n = 3

N = 12

$\Sigma (Y^2i) = 648016,9971$

$J = \Sigma Ji = 2563,1998$

$JK.Total = \Sigma(Y^2i) - J^2/N = 100517,5625$

$JK.Py = \Sigma(J^2i)/n - J^2/N = 100187,2124$

JK.Ey = Total - Py = 330,3501

SV	db	JK	KT	F hitung	F(0,05)
Py	3	100187,2124	33395,73747	808,7356406	4,07
Ey	8	330,3501	41,2937625		
Total	11	100517,5625	-	-	-

db (Total) = Kn - 1 KT = JK/db

db Py = K - 1 F hitung = KT Py / KT Ey

db Ey = db (Total - Py)

Kriteria Pengujian :

- Bila F hitung > F (0,05) maka berbeda signifikan
- Bila F hitung > F (0,01) maka berbeda sangat signifikan

PENGUJIAN HIPOTESA :

a. H : pi = 0

Yang berarti tidak ada perbedaan efek yang signifikan sebagai akibat perbedaan perlakuan

b. Kesimpulan :

Karena F hitung > F (0,05), maka H ditolak dengan signifikan.

Dengan perkataan lain perlakuan-perlakuan memberikan EFEK yang berbeda signifikan.

LAMPIRAN 11

UJI TUCKEY (HSD) TERHADAP "SHELF-LIFE" (t 90%) DALAM SEDIAAN KRIM FORMULA I,II,III,IV

PERLAKUAN	PERBEDAAN RATA-RATA	HSD (5%)	KESIMPULAN
F_1 vs F_2	248,6749	16,80659763	Signifikan
F_1 vs F_3	93,262	16,80659763	Signifikan
F_1 vs F_4	163,4064	16,80659763	Signifikan
F_2 vs F_3	155,4129	16,80659763	Signifikan
F_2 vs F_4	85,2685	16,80659763	Signifikan
F_3 vs F_4	70,1444	16,80659763	Signifikan

F_1 = 87,2642 n1 = 3

F_2 = 335,9391 n2 = 3

F_3 = 180,5262 n3 = 3

F_4 = 250,6706 n4 = 3

db = 8 g = 4,53

KT = 41,2937625 p = 4

$$HSD\ (5\%) = \frac{g\ (0,05;p,db)}{\sqrt{2}} \sqrt{KT\ (1/n\ A + 1/n\ B)}$$

LAMPIRAN 12

DAFTAR NILAI-NILAI X^2 PADA TARAF KEMAKNAAN 5% dan 1%

p / v	0.995	0,975	0.050	0,025	0,010	0.005
1	0,043927	0,039821	3,84146	5,02389	6,63490	7,87944
2	0,010025	0,050636	5,99147	7,37776	9,21034	10,5966
3	0,071721	0,215795	7,81473	9,34840	11,3449	12,8381
4	0,206990	0,484419	9,48773	11,1433	13,2767	14,8602
5	0,411740	0,831211	11,0705	12,8325	15,0863	16,7496
6	0,675727	1,237347	12,5916	14,4494	16,8119	18,5476
7	0,989265	1,68987	14,0671	16,0128	18,4753	20,2777
8	1,344419	2,17973	15,5073	17,5346	20,0902	21,9550
9	1,734926	2,70039	16,9190	19,0228	21,6660	23,5893
10	2,15585	3,24697	18,3070	20,4831	23,2093	25,1882
11	2,60321	3,81575	19,6751	21,9200	24,7250	26,7569
12	3,07382	4,40379	21,0261	23,3367	26,2170	28,2995
13	3,56503	5,00874	22,3621	24,7356	27,6883	29,8194
14	4,07468	5,62872	23,6848	26,1190	29,1413	31,3193
15	4,60094	6,26214	24,9958	27,4884	30,5779	32,8013
16	5,14224	6,90766	26,2962	28,8454	31,9999	34,2672
17	5,69724	7,56418	27,5871	30,1910	33,4087	35,7185
18	6,26481	8,23075	28,8693	31,5264	34,8053	37,1564
19	6,84398	8,90655	30,1435	32,8523	36,1908	38,5822
20	7,43386	9,59083	31,4104	34,1696	37,5662	39,9963
21	8,03366	10,28293	32,6705	35,4789	38,9321	41,4010
22	8,64272	10,9823	33,9244	36,7807	40,2894	42,7956
23	9,26042	11,6885	35,1725	38,0757	41,6384	44,1813
24	9,88623	12,4001	36,4151	39,3641	42,9798	45,5585
25	10,5197	13,1197	37,6525	40,6465	44,3141	46,9278
26	11,1603	13,8439	38,8852	41,9232	45,6417	48,2899
27	11,8076	14,5733	40,1133	43,1944	46,9630	49,6449
28	12,4613	15,3079	41,3372	44,4607	48,2782	50,9933
29	13,1211	16,0471	42,5569	45,7222	49,5879	52,3356
30	13,7867	16,7908	43,7729	46,9792	50,8922	53,6720
40	20,7065	24,4331	55,7585	59,3417	63,6907	66,7659
50	27,9907	32,3574	67,5048	71,4202	76,1539	79,4900
60	35,5346	40,4817	79,0819	83,2976	88,3794	91,9517
70	43,2752	48,7576	90,5312	95,0231	100,425	104,215
80	51,1720	57,1532	101,879	106,629	112,329	116,321
90	59,1963	65,6466	113,145	118,136	124,116	128,299
100	67,3276	74,2219	124,342	129,561	135,807	140,169

Pustaka : Sudjana NA, Desain dan Analisis Eksperimen, Edisi III, Penerbit Tarsito, Bandung, 1989, hal. 398

LAMPIRAN 13

DAFTAR NILAI-NILAI R PADA TARAF KEMAKNAAN 5% DAN 1%

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

Pustaka : Ritschel W.A., Handbook of Basic Pharmacokinetics, 3 th ed, Drug Intelligence Publications, Inc, 1986, p. 448.

LAMPIRAN 14

TABEL NILAI-NILAI F PADA TARAF KEMAKNAAN 5%

υ	p							
	2	3	4	5	6	7	8	9
1	18.0	26.7	32.8	37.2	40.5	43.1	45.4	47.3
2	6.09	8.28	9.80	10.89	11.73	12.43	13.03	13.54
3	4.50	5.88	6.83	7.51	8.04	8.47	9.85	9.18
4	3.93	5.00	5.76	6.31	6.73	7.06	7.35	7.60
5	3.61	4.54	5.18	5.64	5.99	6.28	6.52	6.74
6	3.46	4.34	4.90	5.31	5.63	5.89	6.12	6.32
7	3.34	4.16	4.68	5.06	5.25	5.53	5.80	5.99
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77
9	3.20	3.95	4.42	4.76	5.02	5.24	5.43	5.60
10	3.15	3.88	4.33	4.66	4.91	5.12	5.30	5.46
11	3.11	3.82	4.26	4.58	4.82	5.03	5.20	5.35
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27
13	3.06	3.73	4.15	4.46	4.69	4.88	5.05	5.19
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08
16	3.00	3.65	4.05	4.34	4.56	4.74	4.90	5.03
17	2.98	3.62	4.02	4.31	4.52	4.70	4.86	4.99
18	2.97	3.61	4.00	4.28	4.49	4.67	4.83	4.96
19	2.96	3.59	3.98	4.25	4.47	4.64	4.79	4.92
20	2.95	3.58	3.96	4.24	4.45	4.62	4.77	4.90
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81
30	2.89	3.48	3.84	4.11	4.30	4.46	4.60	4.72
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55
120	2.80	3.36	3.69	3.92	4.10	4.24	4.36	4.47
∞	2.77	3.32	3.63	3.86	4.03	4.17	4.29	4.39

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Pustaka : Sudjana NA, Desain dan Analisis Eksperimen, Edisi III, Penerbit Tarsito, Bandung, 1989, hal. 396.

LAMPIRAN 15

TABEL NILAI-NILAI Q PADA TARAF KEMAKNAAN 5%

ν_2 \ ν_1	1	2	3	4	5	6	7
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17
120	3.92	3.07	2.68	2.45	2.29	2.17	2.09
∞	3.84	3.00	2.60	2.37	2.21	2.10	2.01

Pustaka : Sudjana NA. Desain dan Analisis Eksperimen, Edisi III. Penerbit Tarsito. Bandung, 1989, hal. 406.

LAMPIRAN 16

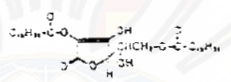
BROSUR ASKORBIL PALMITAT

NIKKOL CHEMICALS CO., LTD.

April, 1987

NIKKOL CP: 2,6-DIPALMITOYL ASCORBIC ACID

NIKKOL CP, 2,6-dipalmitoyl ascorbic acid, is prepared by acylation of L-ascorbic acid (Vitamin C) with highly purified Palmitic acid, and is our proprietary pharmaceutical on which patent rights was established in Japan, France, Great Britain, U.S.A., West Germany and Switzerland.



Chemical Formula and Mol. Wt.: $C_{38}H_{68}O_8$, 652.96

Properties:

Solubility at 25°C:

Ethanol	1.0%	NIKKOL IPM	0.1%
Castor oil	0.5%	NIKKOL TS-10	3.0%
Soybean oil	0.3%	Sorbitol tristearate	1.0%
Olive oil	0.1%	NIKKOL DCS (Dietary sebacate)	0.25%
Cotton seed oil	0.1%	Propyleneglycol	0.05%
Oleyl alcohol	1.5%	Water	nil

Acute toxicity: 8,000 mg/kg in term of LD_{50}

In vivo activity: This compound acts as Vitamin C in vivo, according as its gradual decomposition to ascorbic acid in living organs.

Features and Application Fields:

This L-ascorbic acid derivative, NIKKOL CP, is more stable than L-ascorbic acid. It is fat-soluble and exhibits biochemical activities inherent to Vitamin C in living organisms, namely preventing melanin pigmentation in skin diseases.

A clinical test shows that discharge into urine of NIKKOL CP takes longer period than L-ascorbic acid, this incidentally leads to an induction that the former remains in body tissues longer than the latter.

NIKKOL CP is absorbed percutaneously, and is proved to be effective in remedying skin deseases, such as chloasma, facial melanoderma, chrometopathy.

This lipophilic compound is popularly incorporated into various cosmetic creams, lotion, puck-cream etc.

Powder-type cosmetics containing NIKKOL CP yields a better cosmetical efficacy when it is used in combination with a fluid cream or lotion.

0.1 - 1% dose is recommended.

LAMPIRAN 17

SERTIFIKAT ANALISIS KETOKONAZOL

P.I

Wilhelm Welzien & Co.

Est 1888

Wilhelm Welzien & Co. · P.O.Box 105408 · D-2000 Hamburg 1

Calle-Haus A
P. O. Box 105408
D-2000 Hamburg 1

Tel.: (040) 636413
Tlx.: 2174074 ww d
Cables: Vivace

Hamburg, 15.02.88
WW/IG

Certificate of Analysis & Composition

KETOCONAZOLE

Batch No. 746/87

Description	: almost white, crystalline powder
Identification	: positive
Solubility	: soluble in methanol, insoluble in water
Melting point	: 147 - 148° C
Loss on Drying	: 0.2 %
Sulphated Ashes	: 0.08 %
T. L. C.	: conform
Titer	: 99,5 % (ref. to the dry product)
Heavy metals	: less than 10 p.p.m.

pp. Wilhelm Welzien & Co.

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PERPUSTAKAAN