

가 94 8770 180

가

93 2790 , 5279

92 2580 , 4768

8%, 11%

가

가

가

가

가

(: M/T, 1000 , %)											
	1992			1993				1994			
B-Catotene	2	128	0.1	3	253	0.1	50.0	3	309	0.1	0.0
Vitamin A	48	1,705	1.9	49	1,970	1.8	2.1	53	2,073	1.8	8.2
Vitamin B1	49	2,535	1.9	44	2,114	1.6	10.2	54	2,156	1.8	22.7
Vitamin B2	78	4,814	3.0	67	4,241	2.4	14.1	83	5,684	2.8	23.9
D-, DL-Pantotheic Acid	150	2,858	5.8	149	3,267	5.3	0.7	174	4,323	5.8	16.8
Vitamin B6	37	2,439	1.4	39	2,205	1.4	5.4	43	2,103	1.4	10.3
Vitamin B12	2	921	0.1	1	963	0.0	50.0	2	1,294	0.1	100.0
Ascorbic Acid	871	11,985	33.7	1,020	14,877	36.6	17.1	1,168	16,744	39.3	14.5
Sodium Ascorbate	66	967	2.6	75	1,148	2.7	13.6	43	677	1.4	42.7
Calcium Ascorbate	2	28	0.1	2	35	0.1	0.0	1.6	33	0.1	20.0
Tocoperol	411	11,180	15.9	401	11,705	14.4	2.4	433	12,978	14.6	8.0
Vitamin B9	4	516	0.2	5	539	0.2	25.0	9	525	0.3	80.0
Vitamin D	11	555	0.4	13	755	0.5	18.2	13	1,023	0.4	0.0
Vitamin H	4	367	0.2	4	249	0.1	0.0	0.2	184	0.0	95.0
Vitamin K	34	776	1.3	37	865	1.3	8.8	40	873	1.3	8.1
Nicotinamide	652	927	25.2	697	1,206	25.0	6.9	640	1,196	21.5	8.2
	162	4,980	6.3	184	6,398	6.6	13.6	215.5	6,911	7.2	17.1
	2,583	47,681	100.0	2,790	52,790	100.0	8.0	2,975.3	59,086	100.0	6.6

) /

1614 , 2747 58%, 52%
647 , 1903 36%, 535 , 629 12%

530 , 1663 31.5%
1062 , 1512 28.6%
67 , 424 8.0%, Pantothenic Acid 149 , 327 6.2%

(Tocoperol) 94 가 550 93 530 3.7% 가 , 92 500

6.0% 가 가

가

가

가 가

94

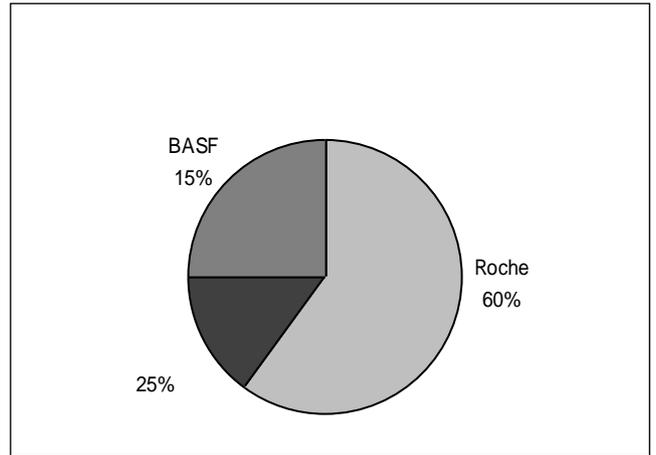
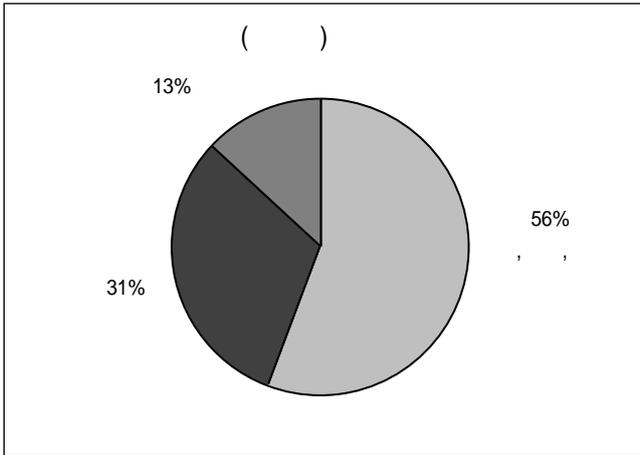
310 ,

170 ,

70

32%, BASF 26%

42%, Roche



60%, 25%, BASF 15%

가 95 6 Kg 34

45 ~ 50

100% 50%

Henkel 90%

Soy Bean Scam

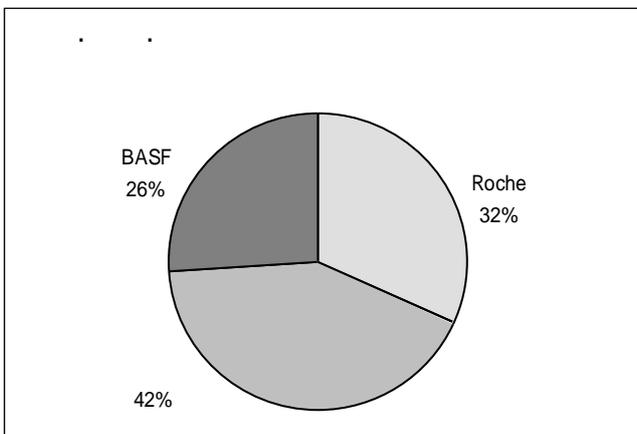
가 95 Kg 60 ~ 70

95

가

ADM

94 70 ~ 80%



Biotin		(: M/T, %)				
		1993		1994		
	Roche	6	24.0	9	32.1	50.0
	Sumitomo	2	8.0	3	10.7	50.0
		8	32.0	12	42.9	50.0
		17	68.0	16	57.1	5.9
		25	100.0	28	100.0	12.0
		70		90		28.6

Nicotinamide

(Nicotinamide) 94 640 B
가

95 3-Cyanopyridien 가

3-Cyanopyridien 가 94 Kg 4.35 95 3
가 94 Kg 6500 7500 15%

6.25 44%

70%가

Roche · Daiichi 가
가 350

Biotin

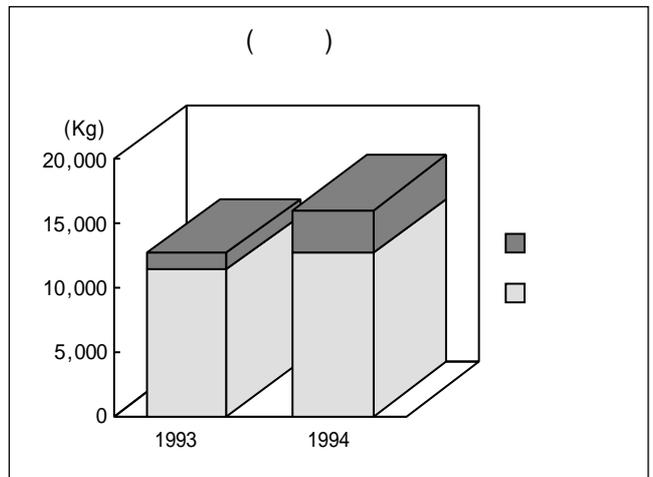
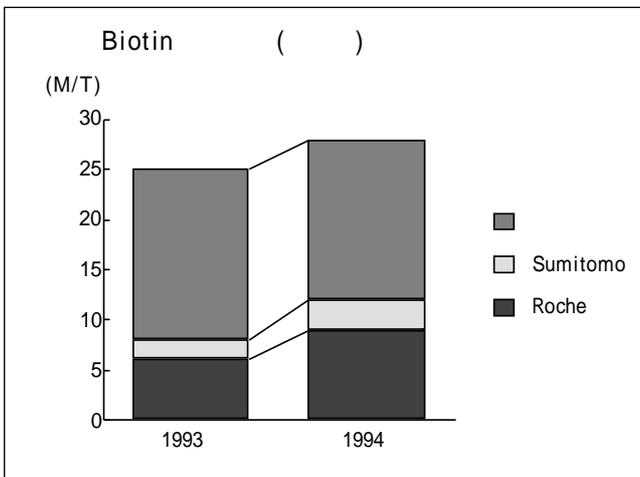
Biotin(Vitamin B9) 94 28 12% 95 31
10.7% 가

16 57% 9 32%, Sumitomo가

3 11%
UR 가

Biotin
가 Bayer
Biotin가 Kg 6 5500 , 1~2 가
가 Kg 80 가 85

Biotin 가 100Kg Roche Sumitomo가



(-Carotene) FDA가 가

가

94 1 6100Kg 93 1 2700Kg 26.8%

1 2700Kg 93 1 1400Kg 11.4% 가

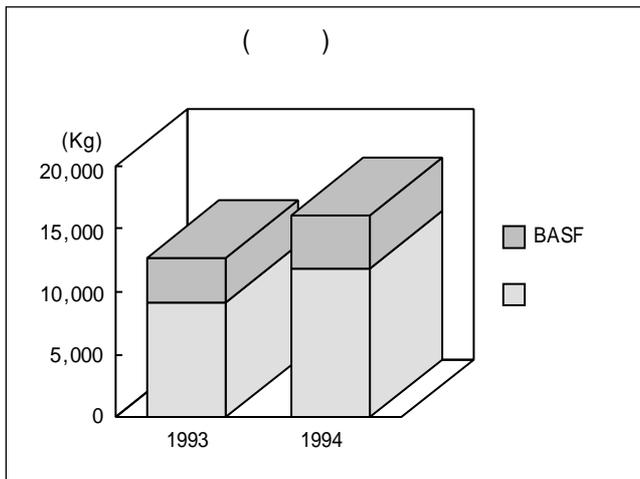
94 3400Kg

93 1300Kg 161.5% 가

Roche 94 3400Kg, 800Kg

9300Kg, 2600Kg

BASF



(: Kg, %)						
		1993		1994		
		8,300	72.8	9,300	73.2	12.0
	BASF	3,100	27.2	3,400	26.8	9.7
		11,400	100.0	12,700	100.0	11.4
		900	69.2	2,600	76.5	188.9
	BASF	400	30.8	800	23.5	100.0
		1,300	100.0	3,400	100.0	161.5
		12,700		16,100		26.8

가 Roche BASF 94 , 95 가 30% Solution
 CIF 가 92 Kg 130 94 170~180 35% 95
 190 . 10% Solution 120 , 1% Solution 29 가

가 가