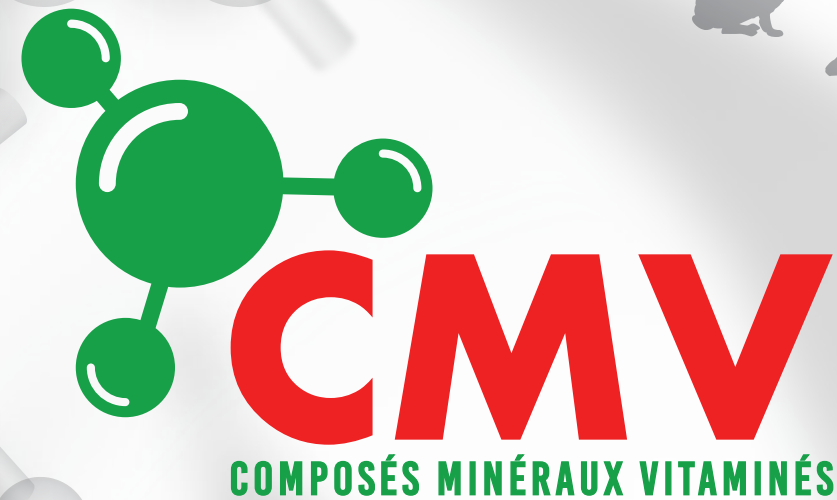




مجموعة بولينا القابضة
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Mineral and Vitamin Compounds (CMV) & premixes of SNA are essential micro-ingredients that are incorporated into compound feed with raw materials (corn, barley, soybean meal, wheat bran, etc.)

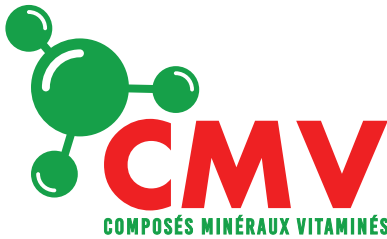
The main ingredients of CMV are, generally; minerals (calcium carbonate, phosphate, trace elements), vitamins, amino acids and additives (anti-coccidians, enzymes, etc.). These ingredients are selected according to specifications and are subject to rigorous quality controls upon receipt.

SNA make available to their customers (breeders and food manufacturers) a range of premixes adapted to the different physiological stages of the farm animals.

Several services are offered to our customers:

- Personalized premixes
- feed formulation according to available raw materials.
- analysis of raw materials and food.

All these services are provided by a experienced team of nutritionists, zootechnicians and veterinarians.



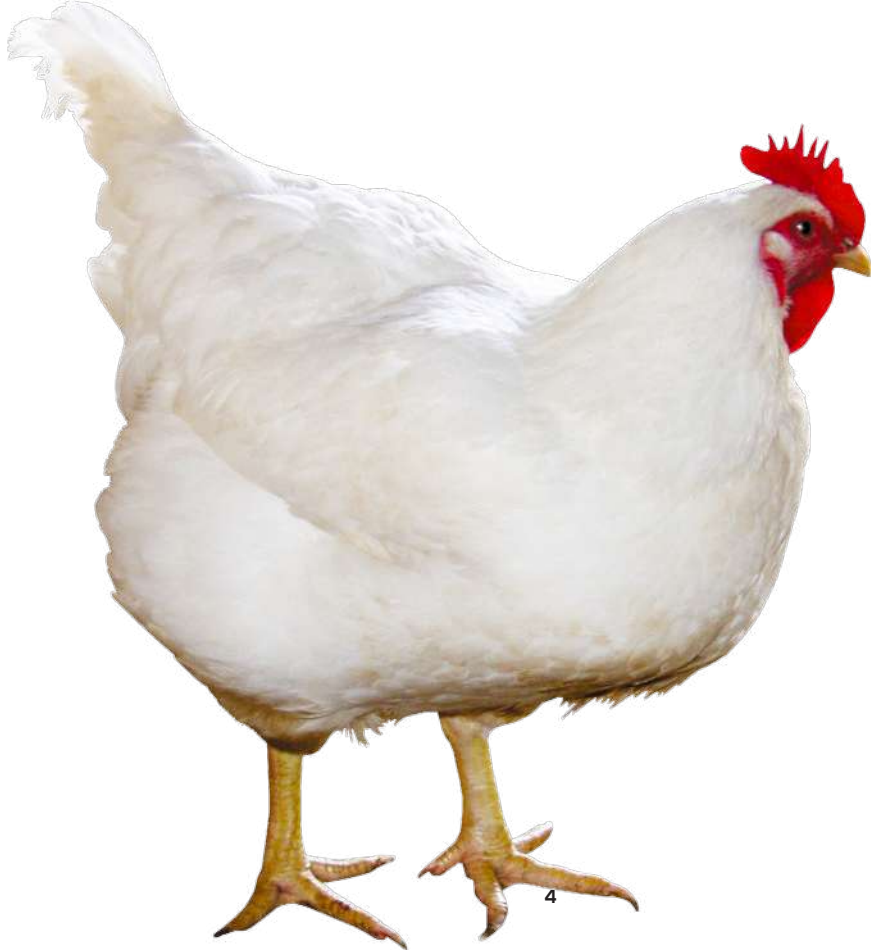
Broilers



	PREMIX SUPER+ EXT			PREMIX SUPER+			PREMIX PLUS		
Designation of CMV	CMV CF1 SUPER+ EXT	CMV CF2 SUPER+ EXT	CMV CF3 SUPER+ EXT	CMV CF1 SUPER+	CMV CF2 SUPER+	CMV CF3 SUPER+	CMV CF1 PLUS	CMV CF2 PLUS	CMV CF3 PLUS
Destination	Starter	Grower	Finisher	Starter	Grower	Finisher	Starter	Grower	Finisher
Incorporation rate	4%	4%	4%	4%	4%	4%	4%	4%	4%
Nutritional characteristics									
MOISTURE	%	5	5	5	5	5	5	5	5
Mineral	%	75,6	79,3	80,0	80,5	81,3	81,8	80,5	81,3
Total phosphorus	%	6,74	6,11	6,56	6,90	8,00	8,30	6,90	8,00
Calcium	%	20,06	20,3	20,64	22,1	22,5	22,8	22,2	22,6
Sodium	%	4,43	5,42	5,43	4,2	3,9	3,7	4,2	3,9
Total methionine	%	7,37	6,06	4,99	5,1	4,0	3,8	5,1	4,0
Total lysine	%	4,31	3,47	3,32	3,44	3,19	2,76	2,76	2,55
Total threonine	%	1,14	0,63	0,51					
Manganese	mg/kg	2000	1600	1600	2000	1600	1600	2000	1600
Zinc	mg/kg	1560	1248	1248	1560	1248	1248	1560	1248
Iron	mg/kg	1189	951	951	1189	951	951	1189	951
Copper	mg/kg	469	375	375	469	375	375	469	375
Selenium	mg/kg	8	6	6	8	6	6	8	6
Iodine	mg/kg	29	23	23	29	23	23	29	23
Cobalt	mg/kg	5,25	4,2	4,2	5	4	4	5	4
Vitamin A	UI/kg	325 000	260 000	260 000	325 000	260 000	260 000	325 000	260 000
Vitamin D3	UI/kg	109 380	87 500	87 500	109 380	87 500	87 500	109 380	87 500
Vitamin E	mg/kg	1 563	1 250	1 250	1 563	1 250	1 250	1 563	1 250
Vitamin K3	mg/kg	50	40	40	50	40	40	50	40
Vitamin B1	mg/kg	51	41	41	51	41	41	51	41
Vitamin B2	mg/kg	175	140	140	175	140	140	175	140
Vitamin B5	mg/kg	250	200	200	250	200	200	250	200
Vitamin B6	mg/kg	154	123	123	154	123	123	154	123
Vitamin B12	mg/kg	0,5	0,4	0,4	0,5	0,4	0,4	0,5	0,4
Vitamin PP (nacine)	mg/kg	1 221	977	977	1 221	977	977	1 221	977
Vitamin B9 (A. folique)	mg/kg	17	13	13	17	13	13	17	13
Vitamin H (Biotine)	mg/kg	7	5	5	7	5	5	7	5

*Special formula range containing extruded soybeans and express soybean meal

Broilers



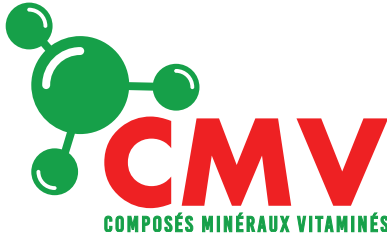
	PREMIX SUPER+ EXT			PREMIX SUPER+			PREMIX PLUS		
Designation of CMV	CMV CF1 SUPER+ EXT	CMV CF2 SUPER+ EXT	CMV CF3 SUPER+ EXT	CMV CF1 SUPER+	CMV CF2 SUPER+	CMV CF3 SUPER+	CMV CF1 PLUS	CMV CF2 PLUS	CMV CF3 PLUS
Destination	Starter	Grower	Finisher	Starter	Grower	Finisher	Starter	Grower	Finisher
Premix ingredients									
Dicalcium phosphate	x	x	x	x	x	x	x	x	x
Calcium carbonate	x	x	x	x	x	x	x	x	x
DL- Méthionine	x	x	x	x	x	x	x	x	x
L- Lysine	x	x	x	x	x	x	x	x	x
Salt	x	x	x	x	x	x	x	x	x
Choline chloride	x	x	x	x	x	x	x	x	x
Ttrace elements	x	x	x	x	x	x	x	x	x
Vitamine	x	x	x	x	x	x	x	x	x
Aantioxidants	x	x	x	x	x	x	x	x	x
Growth promoters	x	x	x	x	x	x	x	x	x
Coccidiostats	x	x	x	x	x	x	x	x	x
NPS enzyme	x	x	x	x	x	x			



Turkeys



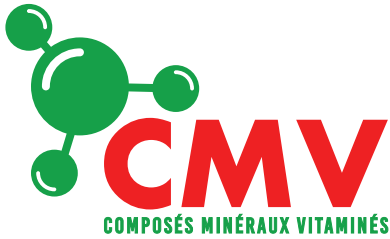
	Premix super +				Premix plus				
Designation of CMV	CMV DF1 SUPER+	CMV DF2 SUPER+	CMV DF3 SUPER+	CMV DF4 SUPER+	CMV DF1 PLUS	CMV DF2 PLUS	CMV DF3 PLUS	CMV DF4 PLUS	
Destination	Starter	Grower 1	Grower 2	Finisher	Starter	Grower 1	Grower 2	Finisher	
Incorporation rate in food	6%	5%	4%	4%	6%	5%	4%	4%	
Nnutritional characteristics									
Moisture	%	5	5	5	5	5	5	5	
Mineral	%	77,50	76,00	74,00	77,00	79,00	77,50	76,50	79,50
Total phosphorus	%	9,70	9,70	9,70	9,60	9,50	9,70	9,70	9,60
Calcium (min)	%	23,00	22,00	21,00	21,50	23,00	22,50	21,50	22,00
Sodium (max)	%	1,67	2,00	2,50	3,00	1,67	2,00	2,50	3,00
Total methionine	%	5,00	5,00	5,00	4,00	5,00	4,80	5,00	4,00
Total lysine	%	3,60	4,00	6,00	4,00	2,70	3,00	4,20	2,40
Manganese	mg / kg	1833	2200	2200	2200	1833	2200	2200	2200
Zinc	mg / kg	1667	2000	2000	2000	1667	2000	2000	2000
Iron	mg / kg	1333	1600	1600	1600	1333	1600	1600	1600
Copper	mg / kg	417	500	500	500	417	500	500	500
Selenium	mg / kg	6,7	8	8	8	6,7	8	8	8
Iodine	mg / kg	41,7	50	50	50	41,7	50	50	50
Cobal	mg / kg	4,2	5	5	5	4,2	5	5	5
Vitamin A	UI / kg	225 000	270000	270 000	270 000	225 000	270000	270 000	270 000
Vitamin D3	UI / kg	66 667	80 000	80 000	80 000	66 667	80 000	80 000	80 000
Vitamin E	mg / kg	667	800	800	800	667	800	800	800
Vitamin K3	mg / kg	33	40	40	40	33	40	40	40
Vitamin B1	mg / kg	42	50	50	50	42	50	50	50
Vitamin B2	mg / kg	133	160	160	160	133	160	160	160
Vitamin B5	mg / kg	267	320	320	320	267	320	320	320
Vitamin B6	mg / kg	100	120	120	120	100	120	120	120
Vitamin B12	mg / kg	0,5	0,6	0,6	0,6	0,5	0,6	0,6	0,6
Vitamin PP	mg / kg	1000	1200	1200	1200	1000	1200	1200	1200
A. Folique	mg / kg	20	24	24	24	20	24	24	24
Biotine	mg / kg	5	6	6	6	5	6	6	6



Turkeys

	Premix super +				Premix plus			
Designation of CMV	CMV DF1 SUPER+	CMV DF2 SUPER+	CMV DF3 SUPER+	CMV DF4 SUPER+	CMV DF1 PLUS	CMV DF2 PLUS	CMV DF3 PLUS	CMV DF4 PLUS
Destination	Starter	Grower 1	Grower 2	Finisher	Starter	Grower 1	Grower 2	Finisher
Premix ingredients								
Dicalcium Phosphate	x	x	x	x	x	x	x	x
Calcium carbonate	x	x	x	x	x	x	x	x
DL- Methionine	x	x	x	x	x	x	x	x
L- Lysine	x	x	x	x	x	x	x	x
Salt	x	x	x	x	x	x	x	x
Choline Chloride	x	x	x	x	x	x	x	x
Trace elements	x	x	x	x	x	x	x	x
Vitamins	x	x	x	x	x	x	x	x
Antioxidants	x	x	x	x	x	x	x	x
Growth promoters	x	x	x	x	x	x	x	x
Coccidiostats	x	x			x	x		
NSP enzyme	x	x	x	x				



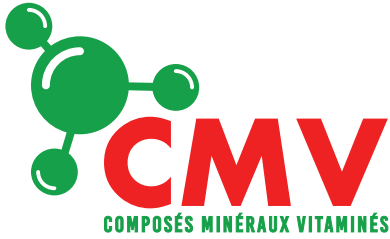


LAYERS



	Rearing			Layers		
Designation of CMV	CMV PF1	CMV PF2	CMV PF3	CMV PF4 HP	CMV PF4	
Destination	starter	starter	developer	beginnings	end of laying	
Incorporation rate in the feed	4%	4%	4%	4%	4%	
Nutritional characteristics						
Moisture	%	5,0	5,0	5,0	5,0	
Mineral Matter	%	82,0	86,0	88,0	87,0	
total phosphorus	%	8,0	6,5	7,0	8,5	6,5
Calcium	%	25,0	27,0	27,0	25,5	27,5
Sodium	%	2,9	2,9	2,9	2,7	2,7
Methionine	%	3,7	2,0	1,6	2,0	1,3
Manganese	mg / kg	2000	1600	1600	2000	2000
Zinc	mg / kg	1625	1300	1300	1600	1600
Iron	mg / kg	1250	1000	1000	1200	1200
Copper	mg / kg	625	500	500	400	400
Seleniumvre	mg / kg	8	6	6	7	7
Iodine	mg / kg	30	24	24	50	50
Cobalt	mg / kg	5	4	4	5	5

	Rearing			Layer	
Designation of CMV	CMV PF1	CMV PF2	CMV PF3	CMV PF4 HP	CMV PF4
Destination	starter	starter	developer	beginnings	end of laying
Incorporation rate	4%	4%	4%	4%	4%
Nutritional characteristics					
Vitamin A	UI / kg	325000	260 000	260 000	280 000
Vitamin D3	UI / kg	87 500	70 000	70 000	70 000
Vitamine E	mg / kg	1 563	1 250	1 250	700
Vitamin K3	mg / kg	50	40	40	100
Vitamine B1	mg / kg	50	40	40	40
Vitamin B2	mg / kg	175	140	140	160
Vitamin B5	mg / kg	250	200	200	300
Vitamin B6	mg / kg	125	100	100	100
Vitamin B12	mg / kg	0,5	0,4	0,4	0,4
Vitamin PP	mg / kg	1250	1000	1000	1000
A. Folic	mg / kg	20	16	16	24
Biotin	mg / kg	7	5,2	5,2	4
Premix ingredients					
Dicalcium Phosphate	x	x	x	x	x
Calcium carbonate	x	x	x	x	x
Baking soda	x	x	x	x	x
DL-Methionine	x	x	x	x	x
Salt	x	x	x	x	x
Choline Chloride	x	x	x	x	x
Trace elements	x	x	x	x	x
Vitamins	x	x	x	x	x
Antioxidants	x	x	x	x	x
Anticoccidials	x	x			



Pullets, Breeding Hens & Roosters



Composition: Calcium carbonate, Bicalcium phosphate, Salt, DL-methionie, L-lysine, Choline chloride, Trace elements, Vitamins, anticoccidians and antioxidants.
NB:
In case of vaccination against coccidiosis at the livestock level, use Premix without anticoccidials (CMV RF1 SA and CMV RF2 SA).

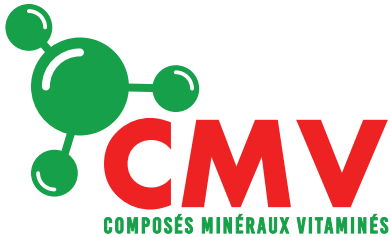
PULLETS, BREEDERS & ROOSTERS					
Designation of CMV	CMV RF1	CMV RF2	CMV RF3-4	CMV RF4-1	CMV RF3
stage	starter	grower	Prelay	laying	Male
Period	1-4 week	5-18 week	19 week-5% laying	laying	19 week- reform
Incorporation rate	4%	4%	4%	4%	4%
Macro-ingredients					
Calcium	%	23,00	25,00	25,00	26,00
Phosphorus	%	8,00	7,00	7,00	6,30
Sodium	%	4,00	4,00	4,00	4,30
Methionine	%	4,30	2,00	1,65	2,35
Lysine	%	1,67	1,57		0,80
Trace elements					
Manganese	mg/kg	2000	1600	3500	2500
Zinc	mg/kg	1920	1896	3483	2400
Iron	mg/kg	1190	951	3000	1427
Copper	mg/kg	469	375	400	375
Selenium	mg/kg	7,5	6,0	12,5	8,8
Iodine	mg/kg	29,3	23,4	100,0	61,0
Cobalt	mg/kg	5,3	4,2	7,5	6,7
Other additives					
Vitamin A	UI/kg	325 000	260 000	350 000	350 000
Vitamin D3	UI/kg	109 380	87 500	87 500	87 500
Vitamin E	mg/kg	1 562,5	1 500,0	1 500,0	2 500,0
Vitamin K3	mg/kg	50	40	126	126
Vitamin B1	mg/kg	51	41	51	51
Vitamin B2	mg/kg	175	140	300	300
Vitamin B5	mg/kg	250	200	375	375
Vitamin B6	mg/kg	154	123	154	154
Vitamin B12	mg/kg	0,50	0,40	0,50	0,50
Vitamin PP (nacine)	mg/kg	1221	977	1167	1167
Vitamin B9 (A. folique)	mg/kg	17	13	42	42
Vitamin H (Biotine)	mg/kg	7	5	5	7
Other additives					
Choline		X	X	X	X
Anticoccidiens		X	X		

Dairy Cows



Composition :
Calcium carbonate, dicalcium phosphate, magnesium oxide, salt, sodium bicarbonate, trace elements & vitamins

	PREMIX SUPER	PREMIX PLUS
Designation of CMV	CMV VL7 SUPER	CMV VL7 PLUS
Destination	Start of lactation	Full of lactation
Incorporation rate in the feed	4%	4%
Nutritional characteristics		
Moisture	%	5
Calcium	%	24,5
Phosphorus	%	2
Sodium	%	6,75
Magnesium	%	1,5
Manganese	mg / kg	1250
Zinc	mg / kg	1250
Iron	mg / kg	1250
Copper	mg / kg	250
Selenium	mg / kg	2,5
Iodine	mg / kg	17,5
Cobalt	mg / kg	2,5
Vitamin A	UI / kg	200000
Vitamin D3	UI / kg	40000
Vitamin E	mg / kg	336
Vitamin B1	mg / kg	168

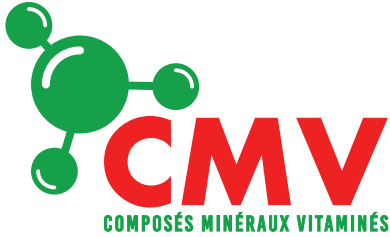


Fattening bulls

Composition :
Calcium carbonate, dicalcium phosphate, magnesium oxide, salt, sodium bicarbonate, trace elements and vitamins.



		PREMIX SUPER +	PREMIX PLUS
Designation of CMV		CMV EF5 SUPER+	CMV EF5 PLUS
Destination		High performance	Standard growth
Incorporation rate		4%	4%
Nutritional characteristics			
Moisture	%	5	5
Calcium	%	26	26
Phosphorus	%		
Sodium	%	10,5	10,5
Magnesium	%	2,25	1,5
Manganese	mg / kg	1250	1000
Zinc	mg / kg	1250	1000
Iron	mg / kg	1250	1000
Copper	mg / kg	250	200
Selenium	mg / kg	2,5	2
Iodine	mg / kg	17,5	14
Cobalt	mg / kg	2,5	2
Vitamin A	UI / kg	150000	120000
Vitamin D3	UI / kg	30000	24000
Vitamin E	mg / kg	250	200
Vitamin B1	mg / kg	125	100

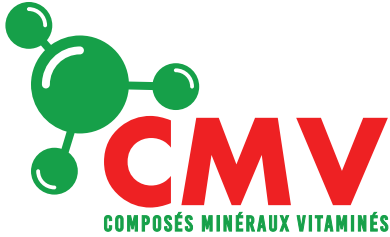


Lambs and sheep

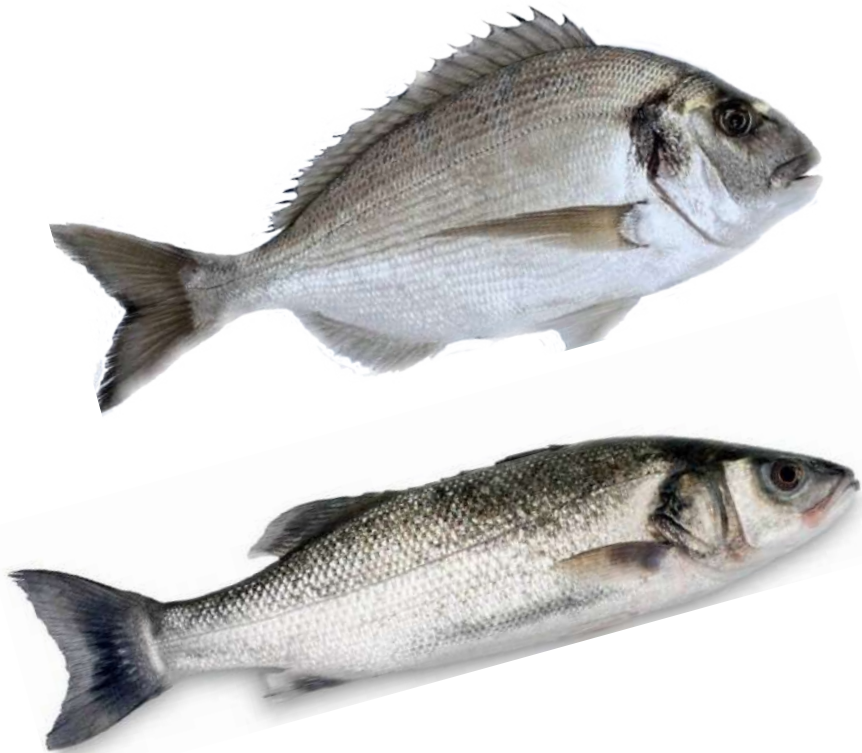
Composition :
Calcium carbonate, dicalcium phosphate, magnesium oxide, salt, sodium bicarbonate, trace elements and vitamins.



		PREMIX SUPER	PREMIX PLUS
Designation of CMV		CMV MF3 SUPER+	CMV MF3 PLUS
Destination		high performance	standard performance
Incorporation rate		4%	4%
Nutritional characteristics			
Moisture	%	5	5
Calcium	%	26,5	27,8
Phosphorus	%		
Sodium	%	10,3	9,6
Magnesium	%	0,75	0,75
Manganese	mg / kg	1500	1200
Zinc	mg / kg	1875	1500
Iron	mg / kg	1250	1000
Copper	mg / kg		
Selenium	mg / kg	5	4
Iodine	mg / kg	15	12
Cobalt	mg / kg	10	8
Vitamin A	UI / kg	150000	120000
Vitamin D3	UI / kg	30000	24000
Vitamin E	mg / kg	250	200
Vitamin B1	mg / kg	125	100



Fish



		CMV FISH	CMV SUPER
Designation of CMV			
Incorporation rate		1%	1%
Macroingredients			
Calcuim	%	28,00	18,40
Trace elements			
Manganese	mg/kg	4 620,00	9 880,00
Zinc	mg/kg	24 660,00	15 690,00
Iron	mg/kg	13 680,00	9 830,00
Cuivre	mg/kg	1 965,00	580,00
Selenium	mg/kg		58,00
Iodine	mg/kg	262,00	197,00
Cobalt	mg/kg		12,60
Vitamins			
Vitamin A	UI/kg	1 200,00	1 570,00
Vitamin D3	UI/kg	250,00	390 000,00
Vitamin E	mg/kg	13 500,00	39 000,00
Vitamin B2	mg/kg	2 000,00	3 500,00
Vitamin B5	mg/kg	5 000,00	8 800,00
Vitamin B6	mg/kg	1 500,00	3 500,00
Vitamin B9	mg/kg	400,00	700,00
Vitamin B12	mg/kg	2,50	12,50
Vitamin PP	mg/kg	10 000,00	17 650,00
Vitamin H (Biotine)	mg/kg	30,00	140,00
Vitamie C	mg/kg	15 000,00	29 400,00
Other additives			
Antioxydants	mg/kg	X	X

Composition: Carbonate de calcium, Oligo-éléments, Vitamines et anti-oxydants.

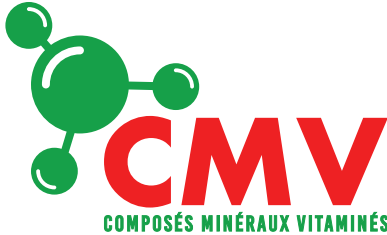


Rabbit



Composition: Calcium carbonate, Dicalcium phosphate, Salt, DL Methionine, L-Lysine, M-Threonine, Choline chloride, Trace elements, Vitamins, anticoccidials and antioxidants.

		CMV MATERNITY RABBIT	CMV FINISHER RABBIT
Incorporation rate	soit	4% 40 kg/Tonne feed	4% 40 kg/Tonne feed
Macroingredients			
Calcium	%	16,00	7,60
Total phosphorus	%	2,70	1,40
Sodium	%	5,40	5,35
Methionine	%	3,45	3,95
Lysine	%	1,80	2,70
Threonine	%	1,10	3,00
Trace elements			
Manganese	mg/kg	525	375
Zinc	mg/kg	1050	750
Iron	mg/kg	875	625
Copper	mg/kg	175	125
Selenium	mg/kg	2	1
Iodine	mg/kg	9	6
Vitamins			
Vitamin A	UI/kg	176 000	126 000
Vitamin D3	UI/kg	35 500	25 500
Vitamin E	mg/kg	876	626
Vitamin K3	mg/kg	34,50	24,50
Vitamin B1	mg/kg	36	
Vitamin B2	mg/kg	71	
Vitamin B5	mg/kg	88	
Vitamin B6	mg/kg	36	
Vitamin B12	mg/kg	0,21	
Vitamin PP (nacine)	mg/kg	351	251
Vitamin B9 (A. folique)	mg/kg	36	
Vitamin H (Biotine)	mg/kg	2,20	1,60
Other additives			
Anticoccidials		X	
Antioxidants	mg/kg	X	X



Horse



Composition: Calcium carbonate, Dicalcium phosphate, Salt, Trace elements, Vitamins and antioxidants.

		CMV HORCE RACING	CVM HORCE MAINTENANCE
Incorporation rate	soit	5% 50 kg/Tonne feed	4% 40 kg/Tonne feed
Macroingredients			
Calcium	%	22,30	25,00
Total phosphorus	%	8,80	8,10
Sodium	%	7,10	5,60
Methionine	%	0.300	
Lysine	%	0,25	
Trace elements			
Manganese	mg/kg	2002	1502
Zinc	mg/kg	2002	1502
Iron	mg/kg	1502	1125
Copper	mg/kg	701	526
Selenium	mg/kg	6,01	4,50
Iodine	mg/kg	20,02	15,02
Cobalt	mg/kg	20,02	15,02
Vitamins			
Vitamin A	UI/kg	299900	224950
Vitamin D3	UI/kg	60000	45000
Vitamin E	mg/kg	500	3750
Vitamin B1	mg/kg	200	150
Vitamin B2	mg/kg	200	150
Vitamin B5	mg/kg	200	150
Vitamin B6	mg/kg	80,10	60,10
Vitamin B9	mg/kg	50,10	37,60
Vitamin B12	mg/kg	0,60	0,44
Vitamin PP	mg/kg	400	300
Vitamin H (Biotine)	mg/kg	3,41	2,61
Choline	mg/kg	4800	3600
Other additives			
Antioxidants	mg/kg	X	X