

**Full list of ingredients added to the tobacco in Philip Morris International cigarettes
manufactured for sale in Europe**

CAS ¹	FEMA ²	CoE ³	Ingredients ⁴	MUL ⁵	Function ⁶
470-82-6	2465	182	1,8-cineole	0.0005	flavouring
1124-11-4	3237	734	2,3,5,6-tetramethylpyrazine	0.005	flavouring
14667-55-1	3244	735	2,3,5-trimethylpyrazine	0.0001	flavouring
15707-24-1	3136	534	2,3-diethylpyrazine	0.0001	flavouring
123-32-0	3272	2210	2,5-dimethylpyrazine	0.0001	flavouring
13925-07-0	3150	727	2-ethyl-3,(5 or 6)-dimethylpyrazine	0.0001	flavouring
15707-23-0	3155	548	2-ethyl-3-methylpyrazine	0.0001	flavouring
110-43-0	2544	136	2-heptanone	0.0005	flavouring
93-51-6	2671	175	2-methoxy-4-methylphenol	0.0001	flavouring
116-53-0	2695	2002	2-methylbutyric acid	0.0001	flavouring
928-96-1	2563	750	3-hexen-1-ol	0.0001	flavouring
590-86-3	2692	94	3-methylbutyraldehyde	0.0005	flavouring
5471-51-2	2588	755	4-(para-hydroxyphenyl)-2-butanone	0.05	flavouring
122-00-9	2677	156	4-methylacetophenone	0.0001	flavouring
698-10-2	3153	2300	5-ethyl-3-hydroxy-4-methyl-2(5h)-furanone	0.0001	flavouring
100-06-1	2005	570	acetanisole	0.0001	flavouring
64-19-7	2006	2	acetic acid	0.01	flavouring
513-86-0	2008	749	acetoin	0.005	flavouring
98-86-2	2009	138	acetophenone	0.0001	flavouring
22047-25-2	3126	2286	acetylpyrazine	0.0001	flavouring
123-68-2	2032	2181	allyl hexanoate	0.005	flavouring
127-41-3	2594	141	alpha-ionone	0.0001	flavouring
79-69-6	2597	145	alpha-irone	0.005	flavouring
540-18-1	2059	270	amyl butyrate	0.0001	flavouring
105-13-5	2099	66	anisylol	0.0001	flavouring
100-52-7	2127	101	benzaldehyde	0.005	flavouring
9000-72-0	2133	-	benzoin extract	0.0001	flavouring
9000-05-9	2133	439	benzoin, resinoid	0.0005	flavouring
120-51-4	2138	262	benzyl benzoate	0.001	flavouring
103-37-7	2140	277	benzyl butyrate	0.0001	flavouring
60-12-8	2858	68	benzyl carbinol	0.05	flavouring

103-41-3	2142	331	benzyl cinnamate	0.0001	flavouring
87-44-5	2252	2118	beta-caryophyllene	0.0001	flavouring
14901-07-6	2595	142	beta-ionone	0.01	flavouring
76-49-3	2159	207	bornyl acetate	0.0001	flavouring
68650-46-4	2169	85	buchu leaves oil	0.0001	flavouring
109-21-7	2186	268	butyl butyrate	0.0001	flavouring
107-92-6	2221	5	butyric acid	0.0001	flavouring
8000-42-8	2238	112	caraway oil	0.0001	flavouring
8000-66-6	2241	180	cardamom seed oil	0.0005	flavouring
84961-45-5	2243	-	carob bean and/or extract	0.05	casing
8015-88-1	2244	173	carrot oil	0.005	flavouring
8015-92-7	2275	48	chamomile flower, roman, extract & oil	0.0001	flavouring
104-55-2	2286	102	cinnamaldehyde	0.05	flavouring
621-82-9	2288	22	cinnamic acid	0.0001	flavouring
8015-91-6	2291	133	cinnamon bark oil	0.0001	flavouring
140-27-2	2302	454	cinnamyl isovalerate	0.0001	flavouring
3681-71-8	3171	644	cis-3-hexen-1-yl acetate	0.0001	flavouring
5392-40-5	2303	109	citral	0.0001	flavouring
77-92-9	2306	20	citric acid	0.0005	flavouring
97-89-2	2313	296	citronellyl isobutyrate	0.01	flavouring
various	-	-	cocoa and cocoa products	0.2	casing
8008-52-4	2334	154	coriander oil	0.0005	flavouring
106-22-9	2309	59	d,l-citronellol	0.005	flavouring
8016-03-3	2359	69	davana oil	0.05	flavouring
112-31-2	2362	98	decanal	0.0005	flavouring
334-48-5	2364	11	decanoic acid	0.0001	flavouring
705-86-2	2361	621	delta-decalactone	0.005	flavouring
698-76-0	3214	2195	delta-octalactone	0.005	flavouring
8006-75-5	2383	42	dill oil	0.0001	flavouring
5989-27-5	2633	-	d-limonene	0.005	flavouring
7452-79-1	2443	265	ethyl 2-methylbutyrate	0.05	flavouring
141-78-6	2414	191	ethyl acetate	0.005	flavouring
105-54-4	2427	264	ethyl butyrate	0.05	flavouring
103-36-6	2430	323	ethyl cinnamate	0.005	flavouring
106-30-9	2437	365	ethyl heptanoate	0.001	flavouring

123-66-0	2439	310	ethyl hexanoate	0.01	flavouring
108-64-5	2463	442	ethyl isovalerate	0.0005	flavouring
97-64-3	2440	371	ethyl lactate	0.0005	flavouring
106-33-2	2441	375	ethyl laurate	0.0005	flavouring
4940-11-8	3487	692	ethyl maltol	0.005	flavouring
123-29-5	2447	388	ethyl nonanoate	0.0001	flavouring
106-32-1	2449	392	ethyl octanoate	0.0001	flavouring
8016-21-5	2331	485	ethyl oenanthate	0.0001	flavouring
101-97-3	2452	2156	ethyl phenylacetate	0.0001	flavouring
105-37-3	2456	402	ethyl propionate	0.0005	flavouring
121-32-4	2464	108	ethyl vanillin	0.05	flavouring
97-53-0	2467	171	eugenol	0.1	flavouring
93-28-7	2469	210	eugenyl acetate	0.0001	flavouring
68990-15-8	2484	460	fenugreek extract	0.0005	flavouring
3658-77-3	3174	536	furaneol	0.005	flavouring
706-14-9	2360	2230	gamma-decalactone	0.005	flavouring
105-21-5	2539	2253	gamma-heptalactone	0.001	flavouring
695-06-7	2556	2254	gamma-hexalactone	0.005	flavouring
104-61-0	2781	178	gamma-nonalactone	0.005	flavouring
104-50-7	2796	2274	gamma-octalactone	0.005	flavouring
104-67-6	3091	179	gamma-undecalactone	0.005	flavouring
108-29-2	3103	757	gamma-valerolactone	0.0001	flavouring
106-24-1	2507	60	geraniol	0.005	flavouring
8000-46-2	2508	324	geranium rose oil	0.0001	flavouring
105-87-3	2509	201	geranyl acetate	0.0001	flavouring
106-29-6	2512	274	geranyl butyrate	0.0001	flavouring
105-86-2	2514	343	geranyl formate	0.0001	flavouring
8007-08-7	2522	489	ginger oil	0.0001	flavouring
56-81-5	2525	4117	glycerol	5.5	humectant
9000-30-0	2537	166	guar gum	1.1	binder
142-62-1	2559	9	hexanoic acid	0.0001	flavouring
6728-26-3	2560	748	hexen-2-al	0.0005	flavouring
142-92-7	2565	196	hexyl acetate	0.0001	flavouring
8023-95-8	2592	255	immortelle extract	0.0001	flavouring
123-92-2	2055	214	isoamyl acetate	0.01	flavouring

106-27-4	2060	282	isoamyl butyrate	0.0001	flavouring
110-45-2	2069	500	isoamyl formate	0.001	flavouring
2198-61-0	2075	320	isoamyl hexanoate	0.01	flavouring
659-70-1	2085	458	isoamyl isovalerate	0.0005	flavouring
102-19-2	2081	2161	isoamyl phenylacetate	0.0001	flavouring
79-31-2	2222	6	isobutyric acid	0.0005	flavouring
78-83-1	2179	49	isopropylcarbinol	0.0001	flavouring
503-74-2	3102	8	isovaleric acid	0.0001	flavouring
8022-96-6	2598	245	jasmine absolute	0.0001	flavouring
50-21-5	2611	4	lactic acid	0.5	flavouring
143-07-7	2614	12	lauric acid	0.0001	flavouring
8000-28-0	2622	-	lavender oil	0.005	flavouring
8008-56-8	2625	139	lemon oil	0.0001	flavouring
8007-02-1	2624	38	lemongrass oil	0.0001	flavouring
8016-31-7	2650	261	lovage extract or oil	0.0005	flavouring
118-71-8	2656	148	maltol	0.005	flavouring
2216-51-5	2665	63	menthol (cigarillos)	0.7	flavouring
2216-51-5	2665	63	menthol (cigarettes)	0.3	flavouring
89-80-5	2667	2035	menthone (cigarillos)	0.1	flavouring
134-20-3	2682	250	methyl anthranilate	0.0001	flavouring
103-26-4	2698	333	methyl cinnamate	0.0001	flavouring
80-71-7	2700	758	methyl cyclopentenolone	0.005	flavouring
556-24-1	2753	457	methyl isovalerate	0.0001	flavouring
101-41-7	2733	2155	methyl phenylacetate	0.0001	flavouring
93685-96-2	2755	7	mimosa extract	0.0001	flavouring
106-25-2	2770	2018	nerol	0.005	flavouring
112-05-0	2784	29	nonanoic acid	0.0001	flavouring
9000-50-4	2795	194	oakmoss absolute	0.0001	flavouring
106-02-5	2840	181	omega-pentadecalactone	0.001	flavouring
8021-36-1	-	313	opoponax oil	0.0001	flavouring
68606-94-0	2822	143	orange oil distilled	0.0001	flavouring
8008-57-9	2825	143	orange oil, sweet	0.0001	flavouring
8002-73-1	2830	241	orris root extract	0.005	flavouring
68917-05-5	3750	-	osmanthus absolute	0.005	flavouring
8014-19-5	2831	40	palmarosa oil	0.0001	flavouring

150-78-7	2386	2059	para-dimethoxybenzene	0.0001	flavouring
123-11-5	2670	103	para-methoxybenzaldehyde	0.0001	flavouring
8006-90-4	2848	282	peppermint oil (cigarillos)	0.2	flavouring
8006-90-4	2848	282	peppermint oil (cigarettes)	0.005	flavouring
103-45-7	2857	221	phenethyl acetate	0.005	flavouring
103-52-6	2861	506	phenethyl butyrate	0.0001	flavouring
103-48-0	2862	302	phenethyl isobutyrate	0.0001	flavouring
103-82-2	2878	672	phenylacetic acid	0.0001	flavouring
100-51-6	2137	58	phenylcarbinol	0.05	flavouring
120-57-0	2911	104	piperonal	0.01	flavouring
90082-87-4	-	58	plum juice concentrate	0.005	flavouring
94-86-0	2922	170	propenylguaethol	0.0005	flavouring
71-36-3	2178	52	propylcarbinol	0.0005	flavouring
57-55-6	2940	4212	propylene glycol	4.2	humectant
127-17-3	2970	19	pyruvic acid	0.0001	flavouring
6812-78-8	2980	76	rhodinol	0.0001	flavouring
8007-01-0	2989	405	rose oil, bulgarian, true otto	0.005	flavouring
50-70-4	3029	H1	sorbitol	1.4	humectant
8046-19-3	3036	265	storax	0.0001	flavouring
104-54-1	2294	65	styrlycarbinol	0.0001	flavouring
90604-30-1	4816	2100	sugar cane extract	0.0001	flavouring
8013-17-0	-	S1	sugar: invert sugar	4.5	casing
57-50-1	-	S1	sugar: sucrose	5.3	casing
68607-01-2	3041	-	tangerine oil terpeneless	0.0005	flavouring
586-62-9	3046	2115	terpinolene	0.005	flavouring
8057-49-6	3099	473	valerian root extract	0.001	flavouring
8024-06-4	3104	474	vanilla extract	0.01	flavouring
121-33-5	3107	107	vanillin	0.05	flavouring
120-14-9	3109	106	veratraldehyde	0.05	flavouring
7732-18-5			water	17.6	moisturizer, processing aid
			Processing aids		

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Footnotes

- 1 CAS Chemical Abstract Service Registry Number. This number is provided where available to identify the ingredient.
- 2 FEMA Flavor and Extract Manufacturers Association reference number. This number is provided where available to identify the ingredient.
- 3 CoE The Council of Europe Reference Number. This number is provided where available to identify the ingredient.
- 4 Ingredient International Union for Pure and Applied Chemistry (IUPAC) name or common chemical name of the ingredient, listed in alphabetical order.
- 5 MUL Maximum Use Level. The maximum quantity at which the ingredient is used in any Philip Morris International brand in this country, expressed as a percentage of the tobacco blend weight (including moisture).
- 6 Function The function of the ingredient in the cigarette. These functions are explained in more detail below:

Function	Description
Binder	Maintains the physical state and texture of the product.
Combustion Modifier	Influences how the product burns.
Filler	Contributes to the bulk of the product without contributing significantly to its odour, taste, flavour or aroma.
Casing	Flavour ingredients and humectants which are added in quantities above 0.1% of the weight of the tobacco blend and are used to replace moisture lost during the curing process and as a carrier for flavourings.
Flavouring	Imparts a specific taste, flavour or aroma to a tobacco product. Individual flavouring ingredients, which can be natural, nature identical or artificial flavourings and flavouring compounds are used at less than 0.1% of the weight of the tobacco blend.
Humectant	Prevents the product from drying out.
Moisturizer	Used to adjust the water content (moisture) of the product.
Preservative	Protects the product from deterioration caused by micro-organisms.
Processing Aid	Facilitates the manufacturing process and are either not present in the end product or occur in residual amount and have no function in the final product.
Processing Aid	Dissolves or dilutes an ingredient without altering its function in order to facilitate handling and application.