

**Full list of ingredients added to the tobacco in Philip Morris International Heated Tobacco Products
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	0.005	flavouring
4313-03-5	3164	729	2,4-heptadienal	0.001	flavouring
15707-23-0	3155	548	2-ethyl-3-methylpyrazine	0.0005	flavouring
110-43-0	2544	136	2-heptanone	0.0001	flavouring
2847-30-5	3183	2266	2-methoxy-3-methylpyrazine	0.0001	flavouring
93-51-6	2671	175	2-methoxy-4-methylphenol	0.005	flavouring
928-96-1	2563	750	3-hexen-1-ol	0.01	flavouring
590-86-3	2692	94	3-methylbutyraldehyde	0.005	flavouring
104-53-0	2887	2013	3-phenylpropionaldehyde	0.01	flavouring
5471-51-2	2588	755	4-(para-hydroxyphenyl)-2-butanone	0.05	flavouring
2785-89-9	2436	176	4-ethylguaiaicol	0.005	flavouring
698-10-2	3153	2300	5-ethyl-3-hydroxy-4-methyl-2(5h)-furanone	0.001	flavouring
110-93-0	2707	149	6-methyl-5-hepten-2-one	0.0005	flavouring
64-19-7	2006	2	acetic acid	0.001	flavouring
513-86-0	2008	749	acetoin	0.01	flavouring
98-86-2	2009	138	acetophenone	0.001	flavouring
22047-25-2	3126	2286	acetylpyrazine	0.0005	flavouring
123-68-2	2032	2181	allyl hexanoate	0.05	flavouring
79-69-6	2597	145	alpha-irone	0.005	flavouring
99-83-2	2856	2117	alpha-phellandrene	0.0005	flavouring
80-56-8	2902	2113	alpha-pinene	0.005	flavouring
98-55-5	3045	62	alpha-terpineol	0.005	flavouring
9000-72-0	2133	-	benzoin extract	0.005	flavouring
60-12-8	2858	68	benzyl carbinol	0.005	flavouring
8007-75-8	2153	137	bergamot oil	0.05	flavouring
87-44-5	2252	2118	beta-caryophyllene	0.005	flavouring
23696-85-7	3420	11197	beta-damascenone	0.01	flavouring
23726-91-2	3243	2340	beta-damascone	0.005	flavouring
14901-07-6	2595	142	beta-ionone	0.01	flavouring
68650-46-4	2169	85	buchu leaves oil	0.0005	flavouring

107-92-6	2221	5	butyric acid	0.001	flavouring
79-92-5	2229	2227	camphene	0.0005	flavouring
8015-88-1	2244	173	carrot oil	0.005	flavouring
8007-06-5	2255	158	cascarilla bark oil	0.0005	flavouring
8000-27-9	-	252	cedarwood oil	0.001	flavouring
8015-90-5	2271	52	celery seed oil	0.005	flavouring
65996-61-4	-	-	cellulose	3.8	binder
8002-66-2	2273	273	chamomile flower, hungarian, oil	0.0005	flavouring
8015-92-7	2275	48	chamomile flower, roman, extract & oil	0.005	flavouring
104-55-2	2286	102	cinnamaldehyde	0.05	flavouring
8015-91-6	2291	133	cinnamon bark oil	0.0005	flavouring
3681-71-8	3171	644	cis-3-hexen-1-yl acetate	0.01	flavouring
13877-91-3	3539	11015	cis-ocimene	0.005	flavouring
5392-40-5	2303	109	citral	0.01	flavouring
77-92-9	2306	20	citric acid	0.0005	flavouring
8000-29-1	2308	39	citronella oil	0.0005	flavouring
106-23-0	2307	110	citronellal	0.005	flavouring
97-89-2	2313	296	citronellyl isobutyrate	0.01	flavouring
various	-	-	cocoa and cocoa products	0.05	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	0.001	flavouring
334-48-5	2364	11	decanoic acid	0.0001	flavouring
705-86-2	2361	621	delta-decalactone	0.005	flavouring
713-95-1	2401	624	delta-dodecalactone	0.005	flavouring
698-76-0	3214	2195	delta-octalactone	0.005	flavouring
5989-27-5	2633	-	d-limonene	0.05	flavouring
7452-79-1	2443	265	ethyl 2-methylbutyrate	0.05	flavouring
141-78-6	2414	191	ethyl acetate	0.05	flavouring
105-54-4	2427	264	ethyl butyrate	0.05	flavouring
103-36-6	2430	323	ethyl cinnamate	0.01	flavouring
106-30-9	2437	365	ethyl heptanoate	0.0001	flavouring
123-66-0	2439	310	ethyl hexanoate	0.05	flavouring
108-64-5	2463	442	ethyl isovalerate	0.001	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	0.01	flavouring
123-29-5	2447	388	ethyl nonanoate	0.005	flavouring
106-32-1	2449	392	ethyl octanoate	0.005	flavouring
8016-21-5	2331	485	ethyl oenanthate	0.05	flavouring
628-97-7	2451	634	ethyl palmitate	0.005	flavouring
105-37-3	2456	402	ethyl propionate	0.01	flavouring
121-32-4	2464	108	ethyl vanillin	0.05	flavouring
97-53-0	2467	171	eugenol	0.05	flavouring
84625-40-1	2485	460	fenugreek extract	0.001	flavouring
3658-77-3	3174	536	furaneol	0.01	flavouring
706-14-9	2360	2230	gamma-decalactone	0.005	flavouring
2305-05-7	2400	2240	gamma-dodecalactone	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	0.0005	flavouring
106-24-1	2507	60	geraniol	0.005	flavouring
8000-46-2	2508	324	geranium rose oil	0.001	flavouring
105-87-3	2509	201	geranyl acetate	0.01	flavouring
56-81-5	2525	4117	glycerol	17.1	humectant
8016-23-7	2534	220	guaiac wood oil	0.005	flavouring
90-05-1	2532	173	guaiacol	0.05	flavouring
9000-30-0	2537	166	guar gum	2.2	binder
66-25-1	2557	96	hexanal	0.005	flavouring
142-62-1	2559	9	hexanoic acid	0.005	flavouring
6728-26-3	2560	748	hexen-2-al	0.001	flavouring
142-92-7	2565	196	hexyl acetate	0.01	flavouring
8023-95-8	2592	255	immortelle extract	0.0001	flavouring
123-92-2	2055	214	isoamyl acetate	0.05	flavouring
106-27-4	2060	282	isoamyl butyrate	0.005	flavouring
2198-61-0	2075	320	isoamyl hexanoate	0.01	flavouring
125-12-2	2160	2066	isobornyl acetate	0.005	flavouring
123-51-3	2057	51	isobutylcarbinol	0.005	flavouring

79-31-2	2222	6	isobutyric acid	0.005	flavouring
78-83-1	2179	49	isopropylcarbinol	0.0001	flavouring
89-79-2	2962	-	isopulegol	0.001	flavouring
503-74-2	3102	8	isovaleric acid	0.0005	flavouring
8022-96-6	2598	245	jasmine absolute	0.0001	flavouring
8002-68-4	2604	-	juniper oil	0.001	flavouring
79-33-4	2611	-	lactic acid	0.2	flavouring
143-07-7	2614	12	lauric acid	0.0001	flavouring
8000-28-0	2622	-	lavender oil	0.01	flavouring
8008-56-8	2625	139	lemon oil	0.05	flavouring
8008-26-2	2631	141	lime oil	0.05	flavouring
78-70-6	2635	61	linalool	0.05	flavouring
68855-99-2	3846	-	litsea cubeba oil	0.05	flavouring
8016-31-7	2650	261	lovage extract or oil	0.0005	flavouring
8008-31-9	3041	-	mandarine oil	0.005	flavouring
2216-51-5	2665	63	menthol	3.5	flavouring
various	2667	various	menthone	0.2	flavouring
16409-45-3	2668	-	menthyl acetate	0.001	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
24851-98-7	3408	10785	methyl dihydrojasmonate	0.005	flavouring
101-41-7	2733	2155	methyl phenylacetate	0.0005	flavouring
119-36-8	2745	433	methyl salicylate	0.005	flavouring
93685-96-2	2755	7	mimosa extract	0.0001	flavouring
106-25-2	2770	2018	nerol	0.01	flavouring
124-19-6	2782	114	nonanal	0.001	flavouring
94944-94-2	-	-	oakmoss absolute	0.001	flavouring
124-07-2	2799	10	octanoic acid	0.0005	flavouring
106-02-5	2840	181	omega-pentadecalactone	0.001	flavouring
68606-94-0	2822	143	orange oil distilled	0.05	flavouring
68647-72-3	4850	-	orange oil terpenes	0.05	flavouring
8008-57-9	2825	143	orange oil, sweet	0.05	flavouring
8002-73-1	2830	241	orris root extract	0.001	flavouring
68917-05-5	3750	-	osmanthus absolute	0.005	flavouring
8014-19-5	2831	40	palmarosa oil	0.0005	flavouring

8000-68-8	2836	326	parsley oil	0.001	flavouring
8006-82-4	2845	347	pepper oil, black	0.001	flavouring
8006-90-4	2848	282	peppermint oil	0.5	flavouring
8014-17-3	2855	136	petitgrain oil	0.01	flavouring
103-45-7	2857	221	phenethyl acetate	0.001	flavouring
122-78-1	2874	116	phenylacetaldehyde	0.0001	flavouring
100-51-6	2137	58	phenylcarbinol	0.2	flavouring
8021-29-2	2905	5	pine needle oil	0.001	flavouring
120-57-0	2911	104	piperonal	0.005	flavouring
94-86-0	2922	170	propenylguaethol	0.0001	flavouring
71-36-3	2178	52	propylcarbinol	0.001	flavouring
57-55-6	2940	4212	propylene glycol	1	humectant
8006-87-9	3005	420	sandalwood oil, yellow	0.005	flavouring
8008-79-5	3032	285	spearmint oil	0.05	flavouring
various	various	265	storax	0.001	flavouring
104-54-1	2294	65	styrylcarbinol	0.005	flavouring
90604-30-1	4816	2100	sugar cane extract	0.05	flavouring
68607-01-2	3041	-	tangerine oil terpeneless	0.05	flavouring
586-62-9	3046	2115	terpinolene	0.005	flavouring
89-83-8	3066	174	thymol	0.001	flavouring
9000-64-0	3070	297	tolu balsam gum	0.001	flavouring
109-52-4	3101	7	valeric acid	0.0005	flavouring
8024-06-4	3104	474	vanilla extract	0.05	flavouring
121-33-5	3107	107	vanillin	0.05	flavouring
120-14-9	3109	106	veratraldehyde	0.01	flavouring
7732-18-5	-	-	water	13.1	moisturizer, processing aid
-	-	-	Processing aids		

The information disclosed on the Philip Morris International website is provided on a voluntary basis by the company for consumer information purposes only. This information is not suitable for use by regulatory authorities. Philip Morris International provides official reports to regulatory authorities in line with applicable legal requirements.

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 product. These functions are explained in more detail below:

Function	Description
Binder	Maintains the physical state and texture of the product.
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.
Combustion Modifier	Influences how the product burns (not applicable for heatsticks).
Fibre	Starting substance and aid for homogenized and reconstituted tobacco.
Filler	Contributes to the bulk of the product without contributing significantly to its odour, taste, flavour or aroma.
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.
Solvent	Dissolves or dilutes an ingredient without altering its function in order to facilitate handling and application.